

**ACCOUNTING FOR THE MANAGEMENT OF  
THE RIVER TYNE IN THE 19TH CENTURY**

**PhD Thesis**

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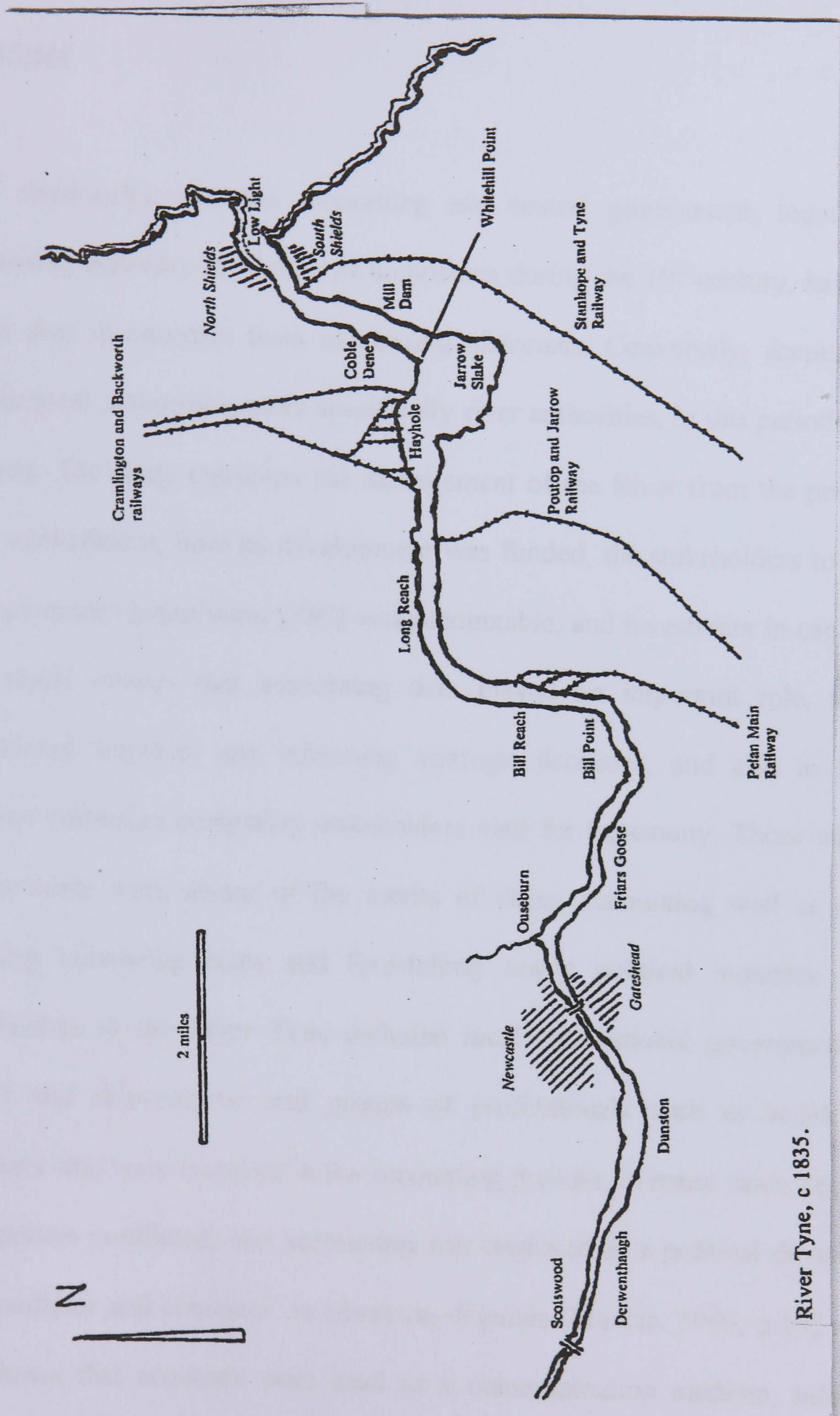


Poem written by George Straker, MP South Shields, c.1830, criticizing the Newcastle Corporation for their lack of action in improving the River Tyne. Clearly the author saw that the town was favoured over the River and it was obvious that the River needed improving. I have entered further explanatory information in brackets where appropriate.

Come all you good folks, attend to my song,  
It's the fame of our Corporation I wish to prolong,  
For improving of rivers and giving good dinners,  
They cannot be equaled by ages or sinners...  
If deepening of rivers like widening of streets  
Required paper and parchment in numberless sheets  
You would soon have the Tyne – I've a confident notion  
If not as deep as Hell's pond quite as deep as the ocean.  
To keep our good Town up, in intellectual march  
Call to your aid clever J-y Bold Arch (James Archibold, Newcastle MP)  
So honest is he, he ne'er alters his note  
Or e'er give a chirp till the Alderman vote.  
It was thought Buddle & Johnson, & Nicholas Wood,  
When they survey'd the river they would do it some good  
But you might as well dance to the tune of a fiddle  
For it's all to be done by Master Mine-viewer Liddle. (Matthew Liddle)  
All people, no matter whether they're thick or they are thin,  
May walk down the river without being up to the chin  
And they also may cross it whenever they please  
And the water shall scarcely come up to their knees.  
All you that are frugal and take care of your groats  
And instead of an Omnibus go in the Steam Boats,  
Be patient and calm, don't get in a fury,  
But trust to our Solomon's – the six river jury.  
No more shall the Steam Boats sit fast like a dish,  
Nor break all the backs of the poor little fish  
And for fear you should think this all nothing but fudge  
They'll deepen the river with a dredge or a drudge.  
That this was promised before we all very well ken,  
And that quizzical Mitchell put in the word when  
Now I'll tell you when, without meaning any degradation,  
When Parliament thinks proper to reform the Corporation.  
Our municipal body have found out a plan  
Which was known and been practices since the world began,  
To increase the water is simply this  
In future they all in the river will \_\_\_\_\_

Tyne Improvement Commission Papers, [L627 T987T, Cr 961066A].





River Tyne, c 1835.



# **ACCOUNTING FOR THE MANAGEMENT OF THE RIVER TYNE IN THE 19<sup>TH</sup> CENTURY**

## **Abstract**

The relationship between accounting and central government, together with the increasing statutory regulation of companies during the 19<sup>th</sup> century, have attracted a great deal of attention from accounting historians. Conversely, accounting change within local authorities, more specifically river authorities, in this period has attracted far less. The study considers the management of the River from the perspectives of who controlled it, how its development was funded, the stakeholders to which Tyne Improvement Commission [TIC] was accountable, and investment in capital projects. The study reveals that accounting data played an important role, in recording operational activities and informing strategic decisions, and also in fighting the political battles as competing stakeholders vied for hegemony. Those who prepared the accounts were aware of the merits of doing accounting well as a means of reducing borrowing costs and forestalling costly political inquiries. The major stakeholders in the River Tyne included local and national government, the TIC, traders and ship-owners, and groups of professionals such as bookkeepers and engineers who were involved in the accounting process. In many cases the interests of these parties conflicted, and accounting was deployed as a political device ‘to act as both mediator and contestor’ in resolving disputes [Francis, 1990, p.10]. The thesis also shows that accounts were used as a communication medium, informing and ultimately aiding radical, democratic forces in challenging the existing social

structure. The thesis adds to a growing body of critical researchers who have developed the idea that accounting can be used as an emancipatory tool in society as a counterfoil to the majority of their number who see it as a tool of oppression by social elites. The study illustrates how accounting impinged on the development of the River, sometimes as a retarder and sometimes as a facilitator, but always vital to its progress.



# ACCOUNTING FOR THE MANAGEMENT OF THE RIVER TYNE IN THE 19<sup>TH</sup> CENTURY

## Chapter 1: Introduction

This thesis examines the function and development of accounting data for the River Tyne in the 19<sup>th</sup> century against a backdrop of major economic, technological, political, social, and organisational change. The thesis focuses on the River Tyne because of its significance to the economic development of the region and country as a whole. In this respect, the sea-sale Tyne coal-trade was especially vital to the progress of the United Kingdom in the 19<sup>th</sup> century in the key role it played in servicing the energy needs of a growing population and industry alike. However, despite its importance the River Tyne has been almost totally omitted from accounting research, leaving a vacuum to be filled which this study aims to accomplish. The study employs various technical accounting and industrial terms throughout, which are explained in the footnotes.

The importance of the River Tyne as a major outlet for both internal and export trade endured throughout the period despite the rise of the railways. As the main artery of trade in the region, water carriage on the River was essential for business success. Prior to the advent of railways, water carriage methods, such as rivers and canals, were the only practicable way in Britain to transport a majority of industrial raw materials and products nationally as well as internationally:

By means of water carriage a more extensive market is opened to every sort of industry than what land carriage alone can afford it, so it is upon the sea coast and along the banks of navigable rivers that industry of every kind naturally begins to subdivide and improve itself [Smith, 1776, p.54].

Later, with the advent of the railways, canals lost some of their importance. Rail was

a much faster means of transportation and tracks could be built much closer to the source of production. As Guthrie [1880, p.40] proclaimed,

the competing merits of rail and canal communication were for many years discussed, ending in the victory of the rail.

Indeed, with its long history of colliery waggonways, the potential of rail transportation was recognised early on in Tyneside, and one of the first steam railways to be built in Britain was the Newcastle to Carlisle Railway. Construction started on the project in 1829, the railway opening nine years later. However, as will be seen, transportation by river and sea did not lose its importance. The rail system was far from complete, and water-borne transportation offered the potential of carrying greater quantities of bulk materials internally, as well as being the only means of exporting goods.

The Tyne was Britain's second largest port at the start of the 19<sup>th</sup> century with a long industrial history stretching as far back as the 16<sup>th</sup> century. The rapid expansion of the sea-sale coal-trade to London began in the 1600s, and by the 18<sup>th</sup> century the port was well established with a range of industries located on the banks of the River.

The population of the area was also on the increase:

During the period 1760-1850 North East England saw increasingly rapid change in its economic, political and social organisation, though these were to be far outstripped in scale in the succeeding period...By 1850 what had previously been a society of small scattered largely agricultural communities was already advanced in the transformation into an industrialized and urbanised society [McCord, 1979, p.35].

Newcastle was the major coal-port supplying London and many other ports both at home and abroad, thus exerting a powerful influence on their economic development.

Indeed, Gladstone described it as

a district with extraordinary and multifarious combination of the various great brands of mining, manufacturing, trading and shipbuilding industry, and I greatly doubt whether the like can be shown, not only within the limits of this land, but upon the whole



surface of the globe [extract of a speech by W. Gladstone, 1862].

## **Previous histories**

The history of the development of the Tyne in the 19<sup>th</sup> century has not been examined previously from an accounting perspective. Moreover, aside from the scientific or hydrographical aspects of the River,<sup>1</sup> most work has concentrated on the industrial development of the region serviced by the River. There are very few studies relating to the development of the River itself. Thus, coalmining, the coal-trade, railways and ship building have already been chronicled and analysed in detail. For example, Finch's [1973] book tells the story of the North-East coal-trade in the days of sail from a non-accounting perspective. The 17<sup>th</sup> and 18<sup>th</sup> century exploitation of the northern coalfield, sailing collier design, their owners, builders and crews, their cargoes and navigations, are the main topics of focus. Coalmining studies involving accounting include Fordyce [1860, p.ii], who in his detailed book described the

progress of coalmining, winning and working of collieries, the duration of the northern coalfield, mine surveying, estimate of the capital required to embark in the coal, coke or iron trades, the probable amount of profit to be realised, amount of capital invested in collieries and ironworks and the history of the coal and iron trade.

Brackenborough et al [2001] examined the reasons for the sudden adoption of discounted cash flow (herein DCF) <sup>2</sup> in the Tyneside coal industry around 1801, concluding that the prime motivation was a combination of economic factors. Improved pumping technology towards the end of the 18<sup>th</sup> century permitted mining at increased depths and under more difficult conditions. The heightened risks resulted

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<sup>1</sup> Black [1957], for example, examined the flood conditions of the River Tyne in her thesis. Swain and Newman [1962] investigated the survival of fish in different levels of polluted waters of the Tyne while Allen [1962, p.5], looked at the 'practical use of the generation, control and transmission of water' of the Tyne. Brierley [1983] investigated the Tyne from a morphological angle focussing on the similarities and differences in the anatomy of organisms with the influence of the Kielder Reservoir that regulates part of the River Tyne, and more recently, Marshall's [1992] report investigated salmon conservation on the Tyne.

<sup>2</sup> A method of evaluating an investment by estimating future cashflows and taking into consideration the time value of money



in a sub-division of ownership into smaller parts, and a concomitant increase in the numbers of colliery valuations involving DCF carried out. Indeed, without DCF which evaluated the marginal rate of return given the risks involved, it is doubtful whether the investors would have had the confidence to commit resources. Hence,

the adoption of DCF is a clear case of accounting and engineering technologies combining to facilitate the exploitation of deep coal reserves, where accounting acted as a determinant of industrial expansion...[without which] deep mining could not have commenced in the Newcastle region at this time [ibid, p.152].

The significance of the railway system in the region has also been very well documented. Whittle [1979] has written a general history of the railways of Newcastle. In a book written by the renowned Gateshead historian Ken Groundwater [1998] the history of railways in and around Newcastle are reflected upon, forming a pictorial view of the development of railways. In another book, Guy [2003] looks at the story of rail in the North from the earliest wooden waggonways to modern times focussing on ‘the pioneers, the workers, locomotives and the revolutionary engineers who changed the face of the world’ [p.4]. However, all of these studies failed to show how, if at all, the railways influenced the use and value of the Tyne as a trading outlet.

Shipbuilding too was a significant industry in the North-East region at this time. Again, this area of study has been examined exhaustively by authors such as Clarke [1997], who has written a comprehensive account of shipbuilding on the Tyne, based on regional archives and printed sources from Berwick to Whitby. Key chapters provide an in depth history of shipbuilding on the North-East coast of England from 1640-1980, and the yards, men and material, ships’ output and the rise and decline of industry are examined in great detail. Keys [1998] produced a reference book listing merchant sailing vessels of 50 or more net registered tons,



owned, registered, or built in the Tyneside area between the years 1830-1930. Groundwater [1998] produced a mainly pictorial view of the shipyards and docks in their prime when ocean-going vessels were often seen along the river.

The British shipping trade in general is also well documented. Kirkaldy [1914], for example, produced a succinct and lucid summary of the history, organisation and importance of the British shipping trade up to 1914 focussing on the development of ship-design, ownership, management and regulations in shipping, as well as trade routes, ports and docks in England. Harley [1988] looked at the effects of technology on freight rates. Napier's [1990, 1991] work on accounting for shipping primarily relates to the P&O company. The main purpose of his 1990 paper was to provide 'an exposition of P&O's changing approach to fixed asset accounting' [1990, p.24]. His second paper examined 'the accounting practices of P&O during the inter-war years' [1991, p.303]. Ville's [1981, 1986, 1988, 1989, 1990] work does reflect on the situation in the North-East. However, it must be stressed that his work does not specifically examine the River Tyne in detail, but takes a general look at the shipping trade in the region; and much of it relates to an earlier period. Boyce [1995a] too considered different aspects of the shipping trade. He explored 'patterns of corporate growth, organisational change and entrepreneurial succession within the British shipping industry 1870-1914' [p.ii]. He showed that British shipowners 'successfully manipulated private information flows to sustain a rapid pace of growth using decentralised, network-based, administrative frameworks,' [p.ix]. Boyce's [1995b] paper explored cost-accounting methods employed by British shipowners during the period in which large-scale enterprise initially emerged in the industry.

Contemporary studies specific to the development of the River Tyne in the 19<sup>th</sup> century exist, including various engineering reports produced annually by local

authorities on the Tyne. Most were published in minutes in the Newcastle Town Council Proceedings (herein the NTCP) and postdate 1835. The majority of these reports are of a technical nature with some accounting detail added, rather than wholly accounting in orientation. Examples include reports from the Newcastle City Library archives such as the River Tyne Improvement Report of the River, 1880 [D.NCP/5/8], and papers relating to the dredging of the River in 1870 [GU.TH/254]. The engineering aspects have also been considered by modern authors. Rennison [1987], for example, looked at the North-Eastern coal ports in the 19<sup>th</sup> century from the perspective of the engineering, construction and design. Manders and Potts [2001] examined the history of the various methods and ways of crossing the River Tyne, such as bridges, tunnels and ferries.

Kenwood [1985] focussed on capital formation in the North-East in the 19<sup>th</sup> century concentrating on the economic conditions of the region with a view to seeing how savings, investments and capital were employed. A study by Savage [1970] did look at the river Tyne from 1800-1850. However, his focus was more on the life and work of the River, the trades unions and commerce, producing maps and illustrations, but with no accounting detail.

### **Central issues of the study**

To sum up, there exists a large peripheral literature relating to this study that will be used to elaborate key issues. Recent work by authors such as Boyce [1992, 1995a, 1995b] and Ville [1981, 1986, 1988, 1989, 1990] relating to the business affairs of traders and ship-owners is especially useful. However, the central questions raised by the study concerning the development of the Tyne rather than the associated industry, and the role played by accounting in that development are largely unresearched. In



order to address this shortfall the thesis explores four main subject areas: the control of the River; its funding arrangements; public accounting and accountability; and accounting for capital projects.

The thesis demonstrates in a multitude of ways the central role of accounting in the dynamics and conduct of the River's development and affairs pre and post 1850. A recurrent key theme in the thesis is the role of accounting in challenging viewpoints and resolving disputes, as a mediator or as a contesteer. Francis, [1990, p.5 ] adds that

accounting is both a moral and discursive practice..involving human agency...a transformative practice that has the capacity to change things in the world.

Accounting is a social practice of informing and communicating. It will be shown in Chapter 3 that opposition fuelled by the increasing availability of accounting data put greater pressure on the Corporation to improve the state of the River Tyne. It did so through the mediums of public meetings, petitioning, and, most importantly, voicing claims through the press. The Newcastle Corporation, on the other hand, reciprocated by using the accounting data to justify the lack of investment in the Tyne. Thus it will be shown the importance of accounting information as a lobbying tool to promote the interests of particular user groups. The major stakeholders in the River included local and national government, the TIC, the traders and ship-owners, and groups of professionals such as the bookkeepers and engineers who were involved in the accounting process. In many cases the interests of these parties conflicted, and accounting was deployed as a political device 'at the boundary between co-operation and conflict ... to act as both mediator and contesteer' in resolving disputes [Francis, 1990, p.10]. Cooper and Shearer add that

Not only is accounting essentially political in that it derives from the political struggle as a whole but also the outcomes of accounting policy are essentially political in that they operate for the benefit of



some groups in society and to the detriment of others [1984, p.204].

According to Francis [ibid, p.7], 'its ability to be used in this way is one of the inherent virtues of accounting practice,' which is a theme that we shall return to in Chapter 3 when we examine its emancipatory potential.

Although accounting can be seen as repressive it also has emancipatory effects. This issue is related to the wider question of accounting's potential as an aid to emancipation. Gallhofer and Haslam (herein G&H) are perhaps the most influential commentators in this field. Producing many articles [1991, 1993, 1994a, 1994b, 1995, 1996a, 1996b, 1996c, 1997a, 1997b, 2000a, 2001] and more recently a book [2003], they aim to create an awareness of the potential significance and benefits of an emancipatory accounting amongst the accountants of the future:

Critical research into accounting has the potential to build upon and go further beyond its current state in order to mobilise a more enabling and emancipatory accounting that can play its part in shaping and reflecting a better world ... For us, an important characteristic of an enabling accounting is its ability to act as a force for radical emancipatory social change through making things visible and comprehensible and helping engender dialogue and action towards emancipatory change [Ibid, 1993, pp.82, 87].

With the motive of improving the world, some critical researchers have developed the idea of accounting as an emancipatory tool as a counterfoil to the majority of their number who see it as a tool of oppression [see Haslam, 1991; Roberts, 1991, Tinker, 1991, Arrington and Francis, 1993, Schweiker, 1993]. As G&H observed:

The perspective that accounting functions repressively in society has for some time been a key and predominant theme in a critical academic discourse on accounting...Accounting can function repressively overall but through social interaction it can come to function in accordance with an emancipatory role...with their vision of accounting's emancipatory possibilities, critical researchers indicate the case for the capture of accounting by the repressed through social struggle...critical researchers thus envisage accounting as functioning to help overcome repressive obstacles so that a better state is realised [2006, pp.6-7]



Thus by mobilising a counter information system, the 'repressed' can potentially use accounting 'so that its emancipatory effects come to constitute the greater force,' [ibid, 2001, p.21].

Both this thesis and G&H have used historical analysis, by exploring accounting's role and development in a historical context, indicating the emancipatory potential of accounting, and also to facilitate a deeper appreciation of both repressive and emancipatory dimensions of accounting today. These issues are looked at in further detail in Chapter 3.

On the Tyne, one could argue that the 'repressed' groups, such as the traders and those with interests in the River were faced with a Corporation that was not willing to expend any significant amount on River improvement, instead leaving it to deteriorate, even though the Corporation clearly received a large proportion of income from the River. These groups suffered because of the poor state of the River and port facilities. However, with the disclosure of accounting data, opposition parties mobilised the information to enable change, first in the change of who controlled the Tyne and secondly in the way future revenue was to be spent. By using accounts, 'emancipation' was achieved by the neighbouring towns which defeated the old Newcastle Corporation's monopoly and gained a new voice and stronghold in the management of their own affairs relating to the Tyne. Accounting had played a highly political role in these developments.

G&H [2001, p.29] showed how in the late 19<sup>th</sup> century 'radical political activists' used accounting data through the medium of the press as an 'emancipatory' force in relation to the campaign for better conditions of employment at Bryant and May. The pressures brought to bear on Bryant and May on behalf of the 'Match Girls' proved successful with the company making a number of concessions



improving their working conditions, such as withdrawing the system of fines, increasing wages by a small amount, the possible provision of a canteen and the acceptance of the formation of a match-maker's union.

The current study adds to this brand of research, showing that accounting information can be used as a tool to enable parties to achieve social goals. Whether the outcome of the battle for control of the Tyne could be regarded as social progress would depend on the perspective of the interests concerned, but it does illustrate accounting being deployed effectively by interest groups to engineer social change. As an illustration of this social change, the result of the battle of the control of the Tyne achieved wider representation in the management of the River for the towns, regions and interest groups dependent on it for their prosperity. Thus, the newly formed TIC was to be made up of members from all interested regions. Accounts had been used as a communication medium, informing and ultimately aiding radical, democratic forces to challenge and change the existing situation. Therefore, it can be stated that the thesis adds to a growing body of critical researchers who have developed the idea that accounting can be used as an emancipatory tool in society as a counterfoil to the majority of their number who see it as a tool of oppression. This also raises the question of whether the events described in Chapter 3 and by G&H are of isolated significance, or whether there are wider inferences that can be drawn. In their study of the role of accounting in the abolition of slavery Oldroyd [2007 et al] took the view that there are general issues involved:

Exposing organisations to greater public scrutiny by obliging them to be more open in their disclosures about the effects of their activities increases the likelihood that the status quo will be challenged by pressure groups.

However, there is also the question of accounting information's ability to mislead, which becomes more critical as the disclosures become more elaborate, requiring



accounting competencies to be able to understand them. These issues are explored further in Chapter 3.

After achieving their original goal of breaking the Newcastle Corporation's monopoly over the Tyne, the activists who were campaigning for improved port facilities did not fade into the background, but were spurred on to greater efforts to promote their cause. Subsequent chapters will describe how they exploited the more detailed levels of disclosure and accountability imposed on the TIC as the second half of the 19<sup>th</sup> century progressed. The main areas involving the role of accounting as a contestator / mediator and where the idea of accounting's emancipatory potential are examined follow in brief summary here. As an extension to the issue of the control of the Tyne, in Chapter 3 it will be shown that when the Shields people used the available accounting data to prove that they merited independence from Newcastle, so too did the Newcastle Corporation in its subsequent campaign for the combined presentation of the Tyne's statistics. Again this demonstrates the efficacy of accounting data as a political tool. When looking at the issues of funding the Tyne in Chapter 4, in-particular when the TIC applied successfully for Government funds to build a Harbour of Refuge but later resolved not to give any grants but instead to offer loans at a lower value and with interest charged. The TIC used accounting information initially to show that they could raise the required funds to be successful in obtaining the grant. However, when they did not receive any free grant, they used their accounts to show their commitment to the project and that they had expended more than what was required to contest the Government's decision. In this example, they were unsuccessful and never received any free grant or an increase in the amount loaned at lower interest rates despite clearly expending a large sum. Also, within this chapter, another area involving the role of accounting as a contestator and



mediator can be seen in the evidence surrounding the control of the 5/8ths dues. As a result of the 1850 Tyne Improvement Act, Newcastle Corporation were given possession of 5/8ths of the coal dues. However, as trade increased on the Tyne so to did the amount of dues and therefore value of the 5/8ths received by Newcastle Corporation who were not obliged to spend any of the income on the river and indeded spent the majority of the income on the town. The TIC contested this situation by using their accounts to show that they barely had enough income to carry out basic works on the Tyne and yet the Newcastle Corporation were receiving a large amount from the River, which was increasing each year and being improved at the expense of the TIC. In a bid to possess the 5/8ths the TIC used accounting information at first to mediate by trying to reach a mutual agreement with the Newcastle Corporation. However, the offers were seen as unreasonable and well beneath the value they were receiving and so it was obvious that the Newcastle Corporation were not going to part that easily with income. This led to the TIC contesting the situation, basing their arguments to resolve the matter on their accounting information, taking the matter to Parliament. By 1870, the TIC were finally handed the dues upon the payment of an agreed sum. Chapter 5 explores the idea of accountability and the development of accounts of the TIC. The TIC faced several internal and external inquiries within it's first 50 years, most of which were not welcomed by the TIC. In many cases the inquiries involved the accountability of the TIC and the position of their accounts were questioned. Significantly the TIC used their accounts to contest any critical inquiry. In other cases accounting information was improved and new techniques adopted, it could be argued in an emancipatory way, to benefit the functioning of the TIC and those who were involved in River matters such as the traders. Finally, in Chapter 6, it will be demonstrated that pressure groups mobilised the more

sophisticated accounts either to challenge and block proposed capital works or to push through alternative schemes, here accounting information played a role of both a facilitator and retarder of progress. The chapter focusses on a particular case study, that of the building of the Coble Dene Dock. This project was criticised from start to finish. Both those in favour of the Docks and those who saw them as unnecessary charged their arguments with accounting information, justifying the need for increased borrowing powers to continue the works and on the other side showing that the dock was not needed and funds were plenty if managed correctly. In 1876 the TIC were faced with little available funds to carry out the improvement works and so went to Parliament to increase their borrowing powers. This was opposed by opposition who argued that the increase in funds was needed to fund the continuing construction of the CDD that they argued was not needed. Given the poor economic conditions which led to a fall off in trade at the port and the voice of the opposition, the application was rejected by Parliament and in response for the first time works were suspended on the Tyne by the TIC. The TIC argued that by taking this action they were protecting the public creditor given the lack of available funds. The opposition contested this action by using accounting information to show that the TIC had ample funds if they managed their affairs better. In response the TIC contested these comments showing that they had not mismanged their funds. Ultimately a process of mediation was entered into as both parties wanted works to resume on the River and the TIC had argued a strong case. Minor changes were made to a revised application for increased borrowing powers which was not so strongly opposed and this time was successful enabling works to continue once more.

The chapter now moves on to explain the content of chapters 3-6.



*Control:* Taking each of these issues in turn, the control of the River was hotly contested in the first half of the 19<sup>th</sup> century. This is the subject of Chapter 3. It will be seen that the introduction of the 1835 Municipal Corporations Act (herein the MCA) exposed the neglect of the Tyne to public scrutiny by obliging local authorities to publish accounts. This gave the opposition to the Newcastle Corporation's monopoly over the River a clear argument to press for the much needed improvement works. Indeed, ultimately it led to the Corporation surrendering its power over the River to the Tyne Improvement Commission (herein TIC). The TIC was a body of commissioners created for the conservancy and improvement of the River Tyne by the River Tyne Improvement Act 1850. It was subsequently incorporated by the Tyne Improvement Act 1857, and enlarged by the Tyne Improvement Acts of 1875 and 1886, and the Tyne Improvement [Constitution and Works] Act 1898.

There is one study that has looked specifically at the accounting arrangements of the Newcastle Corporation. Halcrow [1953] wrote two papers in the 'Mr. Treasurer' series in the Local Government Finance Journal that provide a descriptive outline of the development of the accounting and administrative role of the Common Council from the earliest extant records to 1835. She clearly shows that it was the Common Council who controlled the administration of the town's finance by issuing orders 'no less than royal charters' [p.151]. However, the study did not go beyond the 1835 MCA into what Coombs and Edwards [1993, 1996], Edwards [1992] and Jones [1989, 1992] would describe as the 'watershed' years of change in the way that accounting was approached by local authorities.

The enhanced disclosure requirements of the 19<sup>th</sup> century municipal reform gave the opposition to the Newcastle Corporation a lobbying tool with which to promote their aims. This resulted in an increased intensity in the battle for the control



of the Tyne between the conflicting interests. On the one side, accounts were used to demonstrate the need for river improvement, whereas on the other, the Newcastle Corporation tried to use them to justify their inaction. However, the Corporation's mismanagement and misappropriations were made clear by the accounting data, and ultimately led to an independent investigation and transfer of control to the TIC. Who controlled the Tyne was not challenged again after 1850, but the way the TIC managed the River was. Again, accounting data proved to be a significant factor in 'contesting and mediating' this key issue [Francis, 1990, p.10].

The final 'control' issue is the way in which the Newcastle ports were combined. The port of Newcastle initially included the ports of neighbouring North and South Shields, Newcastle being the port of registry. There was growing dissent from the two Shields ports which lay further downstream that Newcastle should receive all the customs dues even though a substantial amount of the trade occurred at their ports. Both Shields ports pushed for independence and in 1848 two distinct ports of Newcastle and Shields were created. This had serious knock on affects for Newcastle. Aside from the loss of revenue, the ports' trade figures now got published independently in official reports and as a consequence Newcastle fell in the rankings of British port statistics, making it harder to raise funds for improvement works. Accounting data was thus used to demonstrate the situation to the Board of Trade in an effort to 'unite' the three ports once more for statistical purposes on paper at least, as they knew that physically they would never be united in the short run. Newcastle finally got its way:

This separation of what is really one port causes considerable confusion and misapprehension as to the magnitude and importance of the trade of the Tyne, and it has been frequently proposed that there should be a union of the three ports under the name of the 'Port of Tyne' Under such a union each of the existing ports would retain all the facilities from the transaction of business which it at present



possesses; but the aggregate figures of the united port would correctly exhibit to the nations and abroad the business transacted and official status of the Tyne. In the Annual Shipping Returns of the Board of Trade the three Tyne Ports are now [c.1870] grouped to show the aggregate commerce of the River Tyne Guthrie, [1880, p.34].

Again, this demonstrates the efficacy of accounting data as a political tool.

*Funding:* The freeing of the River from the Newcastle Corporation laid the seeds for its extensive development during the second half of the 19<sup>th</sup> century, which is the focus of the remainder of the study. Raising the necessary funds to pay for the dock and harbour improvements that were needed to enable the Tyne to function was a key area involving accounts, and is the subject of Chapter 4.

After the TIC was given control of the River Tyne by Parliamentary Act in 1850, great and necessary changes were needed to be made. Generating sufficient income to service a large debt and thereby enable the harbour authorities to borrow money to carry out much needed improvements was only part of the problem. Of equal importance was the availability of loanable funds at low enough rates of interest. Taxes were raised to help fund improvements, but were never enough. Funding was sought from private and public sources, always aiming to get the best loan at the lowest rate of interest. In fact, much of the money expended in port improvement either came directly from the river dues generated from the port's increasing trade or, more significantly, was borrowed from the Government, the Bank of England or private investors on the strength of the port's growing revenue. It will be shown that the TIC placed public advertisements for loans, and that most of the investment in docks came from joint stock companies, reflecting the increasing depersonalisation of business activities, and the growing importance of the railway interest in the general economic life of the community. For its part, accounting data



played a big part in investment decisions, and was deployed by the TIC to generate vital funding, determine the acceptability of loans and to obtain them at the best rates possible.

Applications for loans or extensions to borrowing powers were made directly to Parliament and the Public Works Loan Commission (herein PWLC). These applications were always justified by accounting data at the forefront of any argument, and illustrative examples are described in the thesis. Applications were not always successful. In one case, the Government's promise of financial assistance was later reduced to the promise of lending funds at a preferential interest rate, only then to be withdrawn without any offer of help at all, which unsurprisingly provoked much argument and debate. The scheme in question was the 'Harbours of Refuge' project, whereby coastal towns put in applications for financial assistance for a new harbour to be built on their particular area of coastline. These harbours of refuge were intended to aid passing ships that could shelter there in times of storms. It was recommended by the Government that a Royal Commission should be appointed to decide the particular sites on which the harbours of refuge should be constructed [Select Committee Report on Harbours of Refuge, Parliamentary Papers, 1858, Vol.17, pp.211-4]. This was the first time that the Government showed a financial interest in harbour development. However, the Government's U-turn left the TIC with a large expenditure bill. The TIC used their accounts to contest the Government's decisions, clearly showing their commitment to the project, spending in excess of what the Government required. However, they never received a penny. From the table below it can be seen that even though gross revenue increased, surplus revenue decreased. This suggests that there was an increase in expenditure in the years 1858-1861 which was indeed the case when the TIC committed themselves and expenditure



to building the HOR.

Year	Gross Revenue Receipts on TIC Funds	Surplus Revenue
1858	54651 <sup>3</sup>	35881
1859	63398	24899
1860	66651	23283
1861	74920	20047

It can perhaps be concluded from this episode that the importance of State intervention in this matter during these years lay not so much in the funds disbursed to harbour undertakings, but in the promise of help that it held out to harbour authorities. Indeed, from the 1880's onwards public loans played an insignificant role in the financing of harbour construction on the Tyne. The TIC had little problems in raising capital, ten times as much of it coming from private lenders as from Government sources. For example, the total expenditure on works undertaken by the TIC to December 31 1882 amounted to £4.1million, of which £0.4million had been expended out of income and £3.7million raised in loans. Of the borrowings, the Commissioners received £3.3 million from private lenders compared to £350,000 from the PWLC.

The TIC received large amounts of revenue by collecting dues on articles traded through the port. There were so many different types of dues that reform was needed to simplify the system. These changes were made in part to aid accounting for the dues. As coal was the main article traded on the Tyne in the 19<sup>th</sup> century, the thesis concentrates on the dues imposed on the coal-trade. From the year of its

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formation, the TIC engaged in much discussion, and dissent, amongst its members regarding the revenue paid to Newcastle Corporation on account of the coal dues. Under the terms of the 1850 Act, the Corporation retained 5/8ths of coal dues. According to Guthrie [1880, p.81], this was ‘compensation’ for the loss of revenue resulting from the Corporation losing control of the River. The argument was that the river dues were in part public funds held for public purposes. Thus, the town should still benefit from the River, especially given that all the other river dues had been handed over to the TIC. With the 5/8ths value increasing each year due to the increase in trade that was stimulated by the improvement works of the TIC, the TIC felt that the 5/8ths should belong to them as they barely had sufficient funds of their own. It took almost 20 years of petitioning for the ownership of the dues to be theirs. Throughout the campaign the TIC used accounting data to contest the position of the Corporation, and various independent parties were involved to try and mediate. It was only with the aid of accounting information that finally some form of agreement was reached. The Tyne Improvement Act, 1870, authorised the transfer of the river dues from Newcastle Corporation to the TIC for a compensation of £130,000.

The thesis identifies one case where the work was suspended due to shortage of funds, attracting heavy criticism. The TIC justified their actions by stating that they had to ‘protect the public creditor’ [NTCP, 1876, p.411]. This was a case where both the TIC and its opponents utilised accounting information at the forefront of their arguments. It can be seen from the following table that during these years, there was a falling off of surplus revenue, indicating a shortage of funds, which led to the TIC to suspend works when an application for increased borrowing powers failed. These issues will be developed further in Chapters 4 and 6.



Year	Surplus Revenue
1874	15564
1875	6754
1876	7387
1877	11208

*Accounting and accountability:* As the funds for harbour improvements were substantial and came from various sources, the river authorities found themselves accountable to the providers of finance as well as the traders who used the River and the facilities that the funds were applied to. Indeed, this issue is related to the third main area of the thesis concerning the increase in public accountability of local authorities in England and Wales during the 19<sup>th</sup> century, which Chapter 5 examines in the context of the Newcastle Corporation. The Newcastle Corporation was the body responsible for collecting and distributing the town's wealth, as well maintaining and improving the River Tyne prior to 1850. After that date the focus of the chapter shifts to the TIC.

Without accounting, the story of the functioning of the Tyne would have probably been very different. It was through the use of accounting data that the Corporation was heavily criticised for neglecting the necessary improvement of the River. Hence, the publication of accounts rendered it accountable not just to the city's ratepayers, but to the other constituents who depended on the River for their livelihood. For its part, the TIC was no longer just there to raise revenue for the council coffers, as had been the case in the past when very little was spent on the port by the Newcastle Corporation. It was now accountable to the investors who provided the funds for improvement. The level of accountability increased as the century



progressed, and the degree of detailed accounting information and disclosure multiplied.

The changing pattern of accountability can also be seen from the angle of the changing nature of the membership of the TIC. The composition of the Commission had been the subject of much controversy from its inception, and sporadic outbursts on this matter occurred throughout its existence in the 19<sup>th</sup> century. Ultimately, this showed the growing importance of trade and traders, whose representation on the TIC increased, compared to declining influence of corporate monopoly power whose majority influence soon diminished.

According to Edwards [1991, p.113], ‘the process of change in accounting is a topic of both interest and importance...a neglected area.’ In the case of the TIC, accountancy reform often resulted from the accountability checks and inquiries that took place, in contrast to what Toms [2005, p.627] observed about the importance of decision-making as an imperative in other 19<sup>th</sup> century studies:

Some researchers have suggested that the introduction of new accounting techniques were a rational response reflecting the decision making needs of entrepreneurs [Boyns & Edwards, 2000; Chandler, 1977; Johnson & Kaplan, 1987].

With the increased accountability of the TIC went the need to enhance efficiency. Special committees were formed by the TIC for the purpose of improving efficiency, often resulting in revisions in accounting methods/techniques. For example, with the death of Guthrie, the Secretary of the TIC and an accounting reformist himself, new accounting controls were brought in, and strict credentials required of the accountant who was to replace him. It will be seen that James Mather, Newcastle Councillor and Tyne Improvement Commissioner, was more often than not the instigator of change from within the TIC. Welford includes a brief biography of Mather in his series *Men of Twixt Tyne and Tweed*. According to Welford [1894, p.178], Mather’s background



was in medicine and philosophy. He was in his early 30's when he became involved in politics, and was seen by contemporaries as a 'radical reformer':

In the *Gateshead Observer*, *Shields Gazette*, and other local journals, Mr. Mather frequently wrote upon the improvement of the river Tyne, so as to render it a harbour of refuge...When the control of the river passed into the hands of a Commission he was elected one of the members to represent South Shields. For many years he advocated at the river board the liberal course of improvements which has converted the Tyne into one of the noblest river estuaries in the United Kingdom [ibid, pp.183-4].

Many of Mather's reforms involved highlighting deficiencies, simplifying, modifying and creating new cost systems and accounting methods for the purpose of economy and ease. In many cases it was through analysing accounting data that Mather based his arguments, using it to contest the current position. Examples are given of his work in Chapter 5.

The reforms of public accounting in Newcastle were not carried out in isolation, but took place against a backdrop of national municipal reform. By the Municipal Corporations Act (MCA), corporations were obliged to produce each year an annual return of receipts and expenditure and 'a full abstract of his [the Treasurer's] accounts' to be available for inspection and purchase by the ratepayers 'on payment of a reasonable price for each copy' [MCA, 1835, S.93]. The statute did not mention the form the abstract should take but did state that it 'should show all monies received...and disbursed' [ibid, S.60]. Furthering the accountability of corporations, ratepayers could also inspect the corporation's books, accounts, and minutes. However, Edwards [1992, p.68] tells us that 'the amount of financial information these contained varied considerably from one authority to another.' Thus, there was neither standardisation in the format of the accounts nor in the level of detail required. How Newcastle Corporation responded to this Act will be shown in more detail in Chapter 3. Prior to the 1830s the accounts appeared with no breakdown



of the amounts actually spent on the River. By the accounting year end 1829/30, alphabetic letters started to appear next to figures in the abstracts indicating that further information relating to these figures was available in the format of notes to the accounts. The level of detail was still limited at the start with sums still being lumped together and only limited information shown. Moreover, it wasn't until the 1835 accounting year end before there was a significant increase in the level of detail attached to the accounts. Instead of brief notes to the accounts, there were now several pages being attached to the abstract and it could be seen now how almost every pound was accounted for, [L352 N536, Newcastle City Libraries].

The TIC is of particular interest to the accounting historian because it provides an early example of the use of consolidation. The technique was first adopted by the TIC in 1872. Consolidation of accounts within public bodies was hardly heard of at the time and, understandably, the adoption of this novel accounting technique created a lot of debate in Newcastle. Clear and careful explanations of this accounting method were needed to try and dispel any confusion and doubts, especially where accounting information was being deployed to mediate disputes.

James Guthrie, who became the TIC accountant in 1851 – he was later given the title of Secretary as his role expanded – was the engineer of the system. It is worth noting that the TIC used the North East Railway Company (NERC) as a comparative several times when adopting new accounting techniques and the NERC had just consolidated their accounts a few years earlier. Further examples are the issues of depreciation and accounting for capital and revenue expenditure, both of which are looked at in Chapter 6. Given the fact that the study has not detected more than one reference to any other local authority or organisation in any document relating to accounting issues, it might be inferred that railway accounts played a part in how and



when techniques were adopted by the TIC.<sup>4</sup>

The TIC tried to extend the use of consolidation, later described as the ‘fusion of funds’, but they were ‘thwarted by an opposition’, who according to Guthrie [1880, p.261], ‘lacked real understanding of the merits of consolidation’. However, as the century drew to a close these plans were successful, maybe due to a better understanding of the technique and also because it was more acceptable to use now that the improvement works were coming to an end. This particular example of accounting change adds to previous studies, in particular the research of Coombs and Edwards whose work on local authorities dominates the area [1993, 1996].

As well as accounting reform, auditing reform also took place. The scope of the audit expanded, and increased in detail. The use of the non-independent auditors was also criticised, and there was a move for auditors to be qualified.

Accountability issues can be split between internal and external focal points. The TIC was constantly under the microscope from internal bodies, such as the Newcastle Corporation and the River Committees – these were bodies that consisted of elected members from the Newcastle Corporation and the TIC – and external bodies such as ship-owners, traders and various Government and Admiralty appointed Commissions. The TIC was held responsible and accountable for bad decisions and poor management by opposition groups, which utilised accounting data published by the TIC to make their case in the generally long and cumbersome inquiries that the TIC did not welcome.

Perhaps the biggest internal inquiry occurred in 1880 after the death of the TIC secretary, James Guthrie. A significant member of the TIC, he wrote a book about his time as a commissioner, and his influential role as secretary and accounts

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<sup>4</sup> The same pattern emerges from my research into Newcastle Corporation in the 19<sup>th</sup> century [Brackenborough, 2008], where the NERC is mentioned as a comparative on several occasions, especially in reference to accounting and auditing reform



“ideas man” for the TIC. His book, published in 1880, the year of his death, is an important primary source used in the thesis. Clearly, the catalyst for this inquiry was Guthrie’s death, as it was not pending beforehand. This practice was not new as the death of a senior officer within the Newcastle Corporation, the bookkeeper, had stimulated an investigation into the accounting practices in 1859 [Brackenborough [2008]. The 1880 inquiry was set up to ‘investigate into the general office arrangements of the Commission’. The report of this investigation, totalling over 100 pages in length, stated in detail the names of the different officers, their salaries and duties, and incorporated a digest of the method of bookkeeping in operation and the principles adopted in dealing with the finances of the Commission. What can be seen from this and other inquiries is that the function and development of accounting data, promoted through bodies becoming more accountable, resulted in changes in the way they operated. Significant ramifications included organisational restructuring and accounting changes, including the revision of accounting methods and tighter and new internal controls being put into place. As a consequence of the inquiries, members were rebuked, allocated less or increased responsibility, and in some cases even were removed from their posts. Those who remained came under closer scrutiny, finding themselves ever under the watchful eye of somebody significantly interested in the accounting data that demonstrated their work.

To sum up, much accounting reform occurred within these bodies – new techniques were tried and tested; there was greater detail in the accounting information produced; presentational changes were made; as well as tighter controls on specific departments. Changes too were made in the types of individual who drew up and audited the accounts, moving away from unqualified local men who perhaps lacked the depth of accounting know-how, to professionals being employed towards



the close of the century.

*Accounting for capital projects:* Chapter 6 looks at accounting for the capital projects of the River Tyne. All trading rivers needed ongoing improvement and the aim here is to consider how these were accounted for, and what role accounting played in capital investment decisions.

There was a rather haphazard approach taken to many construction works, some only having their foundation stone laid before they were later abandoned, usually due to lack of funds. As will be shown in further chapters, accounting data could play a big part in holding up progression, as a retarder, showing that the costs were too great and no funds were available. In other cases it facilitated progression of works. Conversely, the TIC were often accused of mismanaging funds, the charge being laid that if only they were to manage their finances properly, 'there would be ample amount for the improvement works' [NTCP, 1875, p.276]. What actually happened is that the costs, calculated using projections, were defrayed either by loan or out of income. Generally speaking, the cost of structural works was covered by loans, and works of maintenance paid for out of income. Therefore, the manner in which projects were costed, and income was separated from capital, had a major bearing on investment/funding decisions.

In this chapter, by using a significant capital project managed by the TIC, that of Coble Dene Dock (herein CDD), it will be shown how various parties manipulated accounting data to their advantage, either to promote or to criticise the project. Some felt that the CDD was necessary as the Tyne lacked dock space, and when completed would ultimately increase revenue for the TIC as more ships would use the Tyne. Others argued that the project cost too much, and that trade to the Tyne would



increase if the existing docks were improved. The TIC was accused of creative accounting in hiding the true cost of the capital works for this dock. Ultimately, due to the delay brought about by these conflicts in carrying out the construction of CDD, the original purpose of the dock no longer had the same significance, and, with hindsight, the expenditure could be seen as excessive and misplaced.

The issue of using river funds for river purposes and dock funds for docks only was also contentious, especially when there were excess funds on some accounts and desperate shortages on others. It was argued that the docks were feeders of the River, and so transferring funds from one to the other should be allowed as they were interrelated.

The use of depreciation by the two main users of the Tyne, the TIC and the traders is examined, as it was a relatively new concept and one without any real guidance or regulation at the time. Some industries adopted it more quickly than others:

After 1800 the use of depreciation in industrial accounting seems to have become more common. The practice was taken up in the textile industries, while between 1830 and 1850 significant developments in the treatment of depreciation occurred in the railway industry [Edwards and Newell, 1990, p.52].

The findings relating to the River Tyne therefore provide a useful supplement to previous studies in helping to build up an overall picture of the spread of the concept.

Notwithstanding the importance of calculating income to the TIC's funding/investment decisions, the study found that depreciation was not provided throughout the 19<sup>th</sup> century, even though a depreciation deduction was allowed by the Income Tax Authorities from the 1880's. Again, there is reference made to the NERC in the TIC documents whereby it was shown that rather than using depreciation dividend paying railway companies often wrote amounts off to their capital account



for their own advantage, for example to debit revenue with expenditure on works and additions to works and plant instead of charging to the capital account, a procedure that was not a secret. It is clearly shown that categorising depreciation was subjective and problematic for the TIC. It was the same for traders as there was no real guidance on the issue. However, by the end of the century, there is evidence of a move towards greater uniformity in the way depreciation was accounted for.

As far as capital investment decisions were concerned, it was the responsibility of the engineer to manage these works and to provide the initial accounting data such as estimations and costing data. Where possible, the background and role of the River Tyne's engineers is examined. For the larger rivers in the 19<sup>th</sup> century, undertaking important projects often meant that a consultant engineer was involved, such as the eminent Messrs. Rennie,<sup>5</sup> Stephenson,<sup>6</sup> Armstrong,<sup>7</sup> Brunel<sup>8</sup> and Walker.<sup>9</sup> In some cases, the river-authorities – generally town corporations at the start of the 19<sup>th</sup> century and harbour authorities towards the end – employed their own full-time resident engineers. The Tyne was no exception, and some of the resident engineer's responsibilities can be found by looking at NTCP and TIC minutes. Others can be inferred from the types of report they prepared. It was often the case that the engineer was the originator of many accounting reports, producing costing and estimate accounting data that was then used by the TIC's accountant in his reports. Original estimates by the engineers were often significantly different from the actual results, and so were heavily criticised. However, it was also found that the works executed under the immediate direction of the TIC's own engineers to be 'better,

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<sup>5</sup> Sir John Rennie, 1794-1874, civil and railway engineer

<sup>6</sup> Robert Stephenson, 1803-1859, civil engineer, son of George Stephenson, railway and locomotive engineer

<sup>7</sup> William Armstrong, 1810-1900, industrialist and engineer, invented the hydraulic engine and crane.

<sup>8</sup> Isambard Kingdom Brunel, 1806-1859, design engineer of rail and bridges

<sup>9</sup> James Walker, 1781-1862, civil engineer and chief engineer of Trinity House, hence a considerable involvement with coastal engineering



cheaper, and more expeditiously done than when let to contractors' [NTCP, 1875, p.349], enabling the authority to secure the greatest efficiency at the least expenditure of public money.

### **Source material**

The field research consists primarily of an examination of the archival records and minutes relating to the River Tyne, Newcastle Corporation and the TIC. The NTCP minutes from 1835-1900, housed in the local studies section of Newcastle upon Tyne Central Library, were examined alongside a wealth of various archives relating to the River Tyne. From an accounting perspective, the types of archives used were ledgers, cash books, journals, coal-shipment books, export analyses and shipping registers showing the arrivals, tonnes, cargoes and destinations. All extant records relating to the TIC were reviewed. The following have been used in this study: Abstract of accounts, 3 vols., 1851-1939, [L627.22, Cr D2141-5]; Financial Reports 1884-1936 [L627 T987T, Cr 629062A]; Albums of public notices 1879-1929, [L627 T987T, Cr D1439]; Engineer Reports 1865-1891, [L627 T987T, Cr 628796A]; Misc reports/memos 1849-1905 4 vols. [L627 T987T, CR 953595A-953598A]; Secretary's Reports/Minutes to Committees, 1871-1933 [L627 T987T, Cr 629058A]; Various TIC papers 1840-1900, [L042, Cr 961104A]; General Scrap Books 2 vols., [L627 T987T, Cr 961066A]. At the Tyne and Wear Archives Service, records relating to the Tyne Steam Shipping Company, herein TSSCo were reviewed. The majority of the deposited records for this company relate to 20<sup>th</sup> century activities. However, there were some documents available from 1864; Proceedings of annual meetings 1879-1911, 1 volume, [DT.TT/4/1]; Minutes of shareholders general meetings, 1865-1919, 1 volume, [DT.TT/10]; Scrapbook containing newspaper articles, company



prospectus and annual reports 1864-1888, 1 volume, [DT.TT/63]; and, Scrapbook containing newspaper articles, company prospectus and annual reports 1889-1904 [DT.TT/65]. The Bell and Clarke collections at the University of Newcastle upon Tyne Library gave an insight into socio-economic and loco-political issues in Newcastle in the 19<sup>th</sup> century. Finally, James Guthrie's [1880] book gave an eye-witness account into the issues faced by the TIC in the second half of the 19<sup>th</sup> century.

The study proceeds by establishing the economic, technological, political, social and organisational context, before going on to consider the four main subject areas identified above of the control of the River; its funding arrangements; public accounting and accountability; and accounting for capital projects. It concludes by summarising the findings of the study, and by identifying future research avenues.



## **Chapter 2: Background to Events**

Chapter 2 describes the changing patterns of trade, technology, legislation, regulation, ownership and investment on the River Tyne in the 19<sup>th</sup> century to enable the reader to grasp an understanding of the environmental context influencing the events explained in the study.

### **The coal-trade**

There were many different articles traded on the Tyne such as wood, rope, iron and animals, but none of these could match the importance of the coal-trade. From an economic perspective, coal was the biggest driving force in the region. Ship-owners depended heavily upon the coal-trade. The developing pattern of waggonways fed growing volumes of coal to the ‘staiths’, or shipping-points, on the river. Coal in its turn fuelled the rising industrialisation of the banks, with their heavy inorganic chemicals, pottery and glass manufactures. Although there was little physical improvement to the River, coal output increased dramatically after 1830. This was due to colliery owners and their viewers, opening new pits, the Richmond shilling<sup>1</sup>

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<sup>1</sup> Some taxes were imposed centrally by Government but were steeped in tradition and age and soon were abolished perhaps as the nature of trade changed. Merrett and Sykes, [1973 p.289] relates how ‘[In 1831] at a general meeting of the coal-owners, ship owners, merchants, and other persons interested in the trade of the port of Newcastle ... it was resolved to petition both houses of parliament for the abolition of the duty on coals exported coastways from the river Tyne, called the Duke of Richmond’s shilling.’ This duty had been in the family of the Duke of Richmond until 1799, when the government purchased it for c.£400,000. Up until the 1830s the government had received the proceeds on the increasing value of the coal-trade, enabling them to in fact make a profit since the purchase was made: ‘[A] profit of upwards of half a million sterling had been actually realized by government,’ [ibid]. Newcastle paid the tax as that is where the majority of coal was shipped from and the port benefited from certain privileges which now no longer existed. Thus, the tax became burdensome on the coal traders on the Tyne. This specific tax also placed them at a disadvantage with competitors, especially their close rival the port of Sunderland, whose coals were worth more than that of the Tyne in London, and with the shilling charge per chaldron on Tyne coals, handed the trade to the coal-owners on the River Wear at the expense of the trade of the River Tyne. After immense pressure from the local MP’s, this tax was finally repealed in March 1831. The coal merchants had opposed this ‘Richmond Shilling’ started by Queen Elizabeth, and were at last seeing some radical changes in their favour. Moreover, all existing custom duties were ended and a new duty was created on each ton of a shilling for London and a penny to defray the expenses of the coal market.



being abolished in 1831 and the limitation of the vend ending in 1834: <sup>2</sup>

Of all the industrial activities in the region the growth of coal-mining was far and away the most significant...[with] the existence of a ready market, especially in the sea route to London which facilitated the sale of coal...[and] from the 1830s demand abroad became increasingly significant [McCord, 1979, pp.36-7]

The importance of coal to the local maritime economy is illustrated by Dunn [1849, p.233], who recorded that out of the total of 4,138 ships employed in the British trade in the North of England in 1849, 4,031 of them were coal vessels. In foreign trade the figures were 2,842 colliers out of a total of 2,932.

The usual procedure before the 1830s was for ship-owners to buy the coal, as well as to carry it. They naturally resented the traditional control exercised by the Newcastle coal-owners in 'limiting the vend' and keeping prices up, especially since the London factors were also very powerful in restricting the market at the London end:

The effectiveness of the monopoly is shown by the increase in price of nine shillings per chaldron in a single day, when the coal-owners resumed their combination in 1829 [It had temporarily been suspended while the trade was under the scrutiny of the House of Lords] [Dunn, 1849, p.18].

The vend was therefore ended in 1834. However, although the vend had inflated the cost of coal to the ship-owners, it had also helped ensure a market for their coals. The break up of the vend brought about an unregulated coal-trade in which margins suffered as a result of the heightened competition. Thus, 1833-4 witnessed lower coal prices and lower profits for ship-owners.

The ship-owners had the option of acting as carriers only in order to save themselves from financial loss. However, the competition for cargoes was fierce. Kirkaldy [1914, p.67] states:

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<sup>2</sup> Coal-owners used to work in collusion and limit the amount of coal for sale in the market, thus increasing the price.



When shipping firms begin to fall behind in the race, the result is usually fatal. There is no neutral state in the sphere, a shipping firm either progresses or degenerates; the former maybe a slow process, the latter is apt to be rapid.

All shipping companies were in some way affected. In many cases shipping became unprofitable and many companies consequently dissolved. For example, an extraordinary meeting of the shareholders of the Port of Newcastle General Shipping Company was held in March 1844 to consider the possibility of dissolving the Company, whose operations were failing. A week earlier the Borough of Sunderland Shipping Company had been dissolved. During an inquiry looking at the state of trade in 1845, Mr Tanner [ship-owner] was asked the question [6614]: 'Is there great distress among the ship-owners at Sunderland?' Answer, "Very great." Question 6615, 'Many insolvencies?' Answer, 'I am afraid there are.' According to Mr Tanner's evidence, small ship-owners, in bad times, with nothing else to depend upon, were gradually going to ruin:

Even in good times, shipowners with borrowed capital could rarely make it pay; and in after years, when the vicious system became more general, ruin almost invariable followed. The borrower had little or no chance; he had to pay 8 or 10 per cent per annum for the loan, and taking into account the depreciation of the vessel at 7½ per cent, and the insurance at 10 per cent, in effect 20 per cent per annum on the value of the vessel had to be paid, without taking into account the depreciation of the vessel's value, before any profit was left for the owner. Thus the small owners, whose vessels were mortgaged, and whose whole living depended upon the profits of the voyage, could hardly be expected to weather the times Dunn [1849, p.192].

As will be demonstrated by the following example, accounting could be used in making a case about the going concern of a business. Dunn, [1844, pp.204-8] tells us that early in the 19<sup>th</sup> century, shipping interests were

unable to purchase the coals and dispose of them to advantage as heretofore, they have uniformly become the carriers only but so great has been the competition in that department, that the prices obtained have gradually declined for several years, until at length they have arrived at a status below any profit whatever. In order to illustrate this



assertion, I give the facts, as stated in a pamphlet, by a gentlemen well acquainted with the trade Mr Robert Anderson of Westoe in the year 1839 wrote a pamphlet entitled ‘The Present State of the Coal Trade’ and I also give the facts of 1841 and 1844, up to the present moment. Amongst other objects of the speculative mania of 1835, was the formation of shipping companies in which capital to an enormous amount was involved the result of which had been almost a universal failure. Not only have their hopes of profit proved visionary, but in many cases the whole of the capital has been lost, and the companies dissolved ... No better fate attended the public coal companies whose large paid up capitals have been entirely lost, and the share in many instances given away to those who were willing to become responsible partners ... Much of this state of things is attributable to the times, and much also may be set down to jobbing,<sup>3</sup> and to the general mismanagement which has almost invariably attended joint stock companies.

Dunn then went on to demonstrate the unprofitable nature of shipping coal to London based on the calculation of unit cost and unit selling price. Such calculations were typical of colliery viewers on Tyneside [Oldroyd, 1996; Brackenborough et al, 2001]:

Mr Anderson shews that the average prices of best North Country coals in London were as follows:

Newcastle	1836 21s 7 1/4d	1837 22s 4 1/2d	1838 22s 7 1/2d
Sunderland	1836 22s 4 1/2d	1837 23s 8 3/4d	1838 24s 0 1/2d

Freight at this period were 8s 6d per ton. The principal object of this pamphlet was to shew that under the state of things the ship-owner could not make profit, viz:

That he paid for the Newcastle coals	10s 9d
City of London dues	1s 1d
Newcastle dues, lights, factorage <sup>4</sup> and Expenses in London	1s 11 1/2d
	3s 0 1/2d
	13s 9 1/2d
Average freight paid in Newcastle	8s 10 d
Average price at market	22s 7 1/2d

<sup>3</sup> Someone who does not work regularly for one person or organisation but does small pieces of work for different people

<sup>4</sup>The allowance given to a factor, as a compensation for his services; called also a commission



The cost of sailing a vessel with 320 tons of coals, to London and back again, including ballast, provisions &c., which he makes at

	£129 2s 8d
And freight 320 tons at 8s 10d	£141 6s 8d
Balance left for wear and tear, capital &c.	£12 4s 0d

Charges upon a Cargo of Delavel Wallsend Coal taken to the London Market, in March, 1841:

Newcastle Charges 158 chals = 418 ½ purchase of coal 7s 9d =

£162 4s 11d

#### CUSTOM HOUSE CHARGES

Low Lights	0 2 7	
Tynemouth	0 12 8	
Bridlington and Scarbro	0 7 6	
Ballast Ticket and Towns Hose, & c.	6 10 9	
Muster Roll	1 10 8	
Whitby Pier	0 6 4	
Stamp &c. 5s	0 9 6	
Night Office	0 1 7	
Life Boat	0 2 0	£10 3s 7d

£172 8s 6d

Freight on 408 tons at 7s 3d	£147 18s 0d
Carried forward	£320 6s 6d

#### LONDON CHARGES

Night Office, Entry, and Foy	0 5 0	
Trinity Dues &c.,	4 18 6	
Tonnage Dues and Entry	0 14 0	
City Dues	21 18 0	
Metage <sup>5</sup>	5 2 0	
One per cent tret <sup>6</sup> allowed buyers	3 12 6	
Discount and Expenses	7 1 6	
Note and Receipt Stamps	0 18 6	
Commission and Guarantee	6 17 0	
		51 7 0d

408 tons sold at from 16s to 18s 6d	348 16 0d
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Loss	<u>£22 17 6d</u>
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<sup>5</sup>Fee paid for an official measurement

<sup>6</sup>Wastage



In 1844 the result upon the sailing of the same vessel may be stated as follows:

To cost of 408 tons of coals at 7s 3d.	147 18 0
Custom House charges	10 3 7
	158 1 7
Freight of 408 tons at 6s	122 8 0
London Charges, the same	51 7 0 d
	331 16 7 d
by 408 tons sold at 15s per ton	306 0 0 d
Loss	<u>£25 16 7 d</u>

These examples clearly show accounting being used to determine whether a profit was going to be made, with a good appreciation of the costs involved. In such situations, a forecast loss was likely to provoke questions by the owners as to whether the company should dissolve. The economic climate at the time meant that the supply of coal was greater than demand and competition at home and abroad led to the price of coal reducing. Ultimately, through these calculations it could be seen that carrying coal was unprofitable. The purpose of this pamphlet is unclear, but given it was written by a colliery viewer, it was probably intended to publicise the parlous state of the coal-trade and to perhaps seek government assistance of some kind. One possibility that was being put forward was to reduce the prevailing dues on home-produced coals, whilst increasing them on coals from overseas.

The coasting trade became less important as the 19<sup>th</sup> century progressed with a greater emphasis on the overseas trade, with implications for the way the trade was organised and accounted for. Generally speaking, the major overseas markets for coal shipped from the North-East were the Baltic and Northern European countries such as Germany, Belgium and France for fuel usage in manufacturing and the development of the railway system. As the century progressed, so did the growth in coal exports mainly due to the demand for quality coals that were found on Tyneside compared to the Rhur. Continuous growth was seen in the output of coal, aided by the advent of

the railway and the steamship, the latter involving a rapid development of the coal bunkering trade, which became a distinctive feature. Coal bunkering involved stocking up coal at the River's edge to act as passing ships' fuelling stations. To increase trade, speed of loading and ultimately revenue, the Tyne Improvement Commission (TIC) wisely reduced their dues on vessels in 1884 calling only for bunker coals. The Tyne gained the reputation as a cheap bunkering port, with vessels able to get away quickly without having to enter a dock, making the Tyne the 'premier bunkering port of the United Kingdom and perhaps of the world' [Manders and Potts, 2001, p.99]. The ability to sustain such growth was due to technological, river and harbour improvements; significant factors examined in this thesis.

### **Technological progress**

Technological advancement was as vital in the 19<sup>th</sup> century as it is today. The progression of the coal-trade, advances in technology and, perhaps more importantly, the decision to adopt this technology greatly influenced the success or failure of many shipping interests and ports. The increase in coal production was itself facilitated by technological innovation. Coal-cutting machinery made getting coal easier and more efficient, which led to an increase in the output of coal and thus the trade increased. The first practical mechanised system of coal-cutting was introduced in 1862 with improvements following in 1864 and 1868 [Hill, 1991]. The key to accessing this coal was the: 'systematic introduction of Watt's improved double-powered or double-acting engine, which allowed penetration to much greater depths' [Galloway, 1898, p.309]. The introduction of this improved pumping technology allowed a large number of deep sinkings to take place on Tyneside from the 1790s onwards at Wallsend, Biggs Main, Willington, Percy Main, Jarrow, North Shields and South



Shields, for example. Additionally, the capacity to mine deeper permitted the penetration of the Low Main seam in areas closer to Newcastle, such as at Byker or Felling, where the High Main seam had been worked out some years previously [ibid, pp.290, 294, 389-91].

*Steam and ship-design:* If the invention and increasing efficient use of steam power was perhaps the most significant technological advancement affecting coalmining during the 19<sup>th</sup> century, with knock on effects for trade on the River Tyne, the same was true of the shipping industry. According to Boyce [1995b, p.360], large-scale enterprise in the shipping industry initially emerged from 1870 to the early 20<sup>th</sup> century, and was linked to the adoption of steam:

The shift from sail to steam was primarily the result of technological changes occurring gradually in the period from 1850 to 1890 [Harley, 1970, p.266].

Technological development had long-term effects on efficiency and economy, which in turn transformed productivity [Craig, 1985, p.9].

Accelerating technical change, intensifying competition and growing firm size after 1880 increased the level of managerial complexity [Boyce, 1995b, p.362].

The Ultimate effect was that steam power became 'King' as technology improved and steamers became more efficient and less costly [ibid, p.358].

According to Armstrong [1864, p.48], 'steam had been applied to the propulsion of ships in 1812.' However, the use of steam at this early stage was experimental and only on a very small scale. The decision to adopt steam in place of sail was a major strategic decision for many traders. These experiments of trying out steam ships as coal carriers were not sufficiently successful to lead to immediate adoption by ship-owners generally, who searched for other means of reducing the working expenses of the sailing collier. Ships were transforming from slower, smaller



wooden vessels to much faster, larger and capacious iron carriers that were capable of trading to and from all parts of the world. As further technological progress was made with steamers, they became more acceptable to shipping firms. In 1842 the *Bedlington* was launched by the Bedlington Coal Company for shipping coal in the Tyne. This ship was a screw steamer, specifically constructed for the purpose of carrying coal. It was not a success and suffered many problems such as engine failure.

We see the growing use of accounting information in assessing the viability of adopting steam in place of sail as the 19<sup>th</sup> century progressed. It was not just poor design in the early stages that retarded progress, accounting calculations may also have resulted in the wrong decisions. Clearly there was uncertainty about the continuing viability of the coastal coal-trade. Armstrong [1864, p.205] wrote that by the start of the 1850s,

some high authorities in the shipping world were by no means satisfied that, even with this economy, sea carriage would be able to compete with land carriage in the coal trade

Writing in the *Times* on June 24, 1851, Mr W.S. Lindsay, a highly respected ship-owner, likewise stated that ‘inland transit by railway will have all but supplanted those steam vessels’. He then went on to compare the cost of carriage by colliers unfavourably to rail:

Freight 6s; transit from pit to staith, ship dues, and charges, 1s 6d; barge, landing charges etc, 2s. total 9s 6d. per ton. Add cartage dues and loss by screening, the cost of conveying coal from the Tyne to London, was 13s 6d. per ton, exclusive of 1s 1d for coal dues, to which inland coals were not subject. The London and North-Western Railway Company could afford to carry a ton of coals 100 miles for 1s. on which basis the coal-owners of the North of England would be able to convey their produce from the pit’s mouth, all ready for consumption, to a station in the very centre of London for about 3s. per ton.

What the early experiments, including the *Bedlington*, achieved was to demonstrate the possibility of using such a vessel for cargo-carrying purposes; and



this did not go unnoticed. Other attempts were made, but the John Bowes was the first totally successful steam collier. Lindsay [1851] comments that the John Bowes was built expressly

for the transport of coal from the North of England to the London market, to meet the competition which had been created by the formation of the railway.

With steam power, journeys could be made much more quickly, and certainty could be added in that the timing of vessels could be better predicted. These factors resulted in steamers carrying out proportionally more work as the century progressed.

However, one of the main problems of the early steamships was that they needed to carry a considerable quantity of coal for their own propulsion, making it uneconomical to travel long distances. Writing from London to the *Shields Gazette*, just after the John Bowes had completed her first voyage [1852], Mr Hugh Taylor, a significant coal and ship owner compared the return on investment in steamships unfavourably with the sailing collier [a sail boat that carried coal]:

The shipowner will shortly have more serious competition in the shape of screw colliers, and he must turn his attention to every possible way to reduce disbursements of his ship. The great evil the shipowner has to encounter is the detention in the harbours...if our ships could meet with greater facilities in loading and unloading, the proposed screw colliers could not possibly compete with us...[A week later] With respect to screw colliers, and I think it may be fairly assumed that one intended to carry 600 tons of coal cannot at present be sent to sea under £8500; assuming the average number of voyages at 25 per annum, the expenses per voyage may be estimated nearly as follows:

Wear and tear, 12 per cent; interest, 4 per cent;	
insurance 7 per cent	78 0 0
Portage Bill – 1 captain, 1 mate, 2 engineers, 2 stokers,	
1 trimmer, 5 sailors, 2 boys	30 0 0
Delivery – 7d per ton on 600 tons	17 10 0
Trimming £3; lights £3 12s; pilotage, £1 10s;	
coals for engines £5, Provisions £5, despatch £9	28 2 0
	153 12 0
Freight of 600 tons, at 5s 6d	165 0 0
Profit for voyage	11 8 0

Let us look at the cost and expense of a collier, very few vessels are



employed in the coasting trade, and the value of those purchased to carry coals range from £1000 to £1400 say £1200 for one delivering 380tons. Assuming that such a vessel makes 12 voyages per annum, her expenses per voyage will be : wear and tear and insurance at 10 percent, interest at 4 per cent, £24; disbursements £75; total £99. Freight of 380 tons at 5s 6d, £104 10s. Profit £5 10s. It would appear that the percentage returns of the sailing collier is very considerable over that of the steamer, and it may be asserted that the margin for saving in the cost of navigation is still more in favour of the former.

It was later questioned whether Taylor's estimate of the number of voyages for the John Bowes was too low. The Earl of Durham obtained an estimate for a screw collier based on a cargo capacity of 600 tons, and an estimated number of voyages of 26 per annum to London. But instead the *Lady Alice Lambton* made 70 trips between the Tyne and Thames in the first 72 weeks she was running. Taylor [ibid] was thus forced to concede: 'Now of course seventy London voyages is a very ordinary year's work for the Tyne collier'.

It was thought that if a vessel could be developed that used coal on the outward voyage, and water as ballast on the return, this would economise the conveyance of coal to the distant coasting ports and to London, enabling better competition with the improving and powerful locomotive engines on the railways. What was therefore required was better technological advancement in ship-design. This was recognised by the newly formed shipping companies. The prospectus of the General Iron Screw Company, 1852, makes interesting reading:

The object of this company is to secure an economical and expeditious mode of transport of Coal by sea. The great advantages recently attained in Navigation by the use of Iron in the construction of vessels, combined with the power and efficiency of the Screw Propeller, suggest special facilities for carrying out this object. The Vessels now engaged in the Coal Trade are of inferior sailing qualities, and are otherwise ill-adapted to the purpose. There is, therefore, great uncertainty as to the duration of the voyage and as to the arrival at the Ports of loading and discharge, while the prevalence of advance winds frequently occasions great irregularity in the supply of coal and fluctuations in the price.



At the time, steam vessels were a relatively new method of carrying coal and so a niche market existed. This company could see the potential advantages of steam and was promoting its usage to investors in their prospectus.

Others too began to see the advantages of the new design of steamers:

The utility of the screw was quickly demonstrated. Indeed, Mr Taylor himself was one of the earliest converts, after witnessing the practical result of the change, he took the radical step of selling the whole of his sailing fleet and placing an extensive order for iron screw colliers [Hodgson, 1903, p.315].

Furthermore, steam colliers were rapidly becoming more efficient:

1856 had seen the *General Codrington* deliver 600 tons of coal to London in the course of a round voyage from the Tyne which was made in the unprecedented time of 4 days 7 hours. No commercial sailing ship could beat that [Keys, 1998, p.28].

Bagwell [1974, p.62] describes how

the *James Dixon* made 57 voyages to London in one year and delivered 62,842 tons of coals, with a crew of only 21. To accomplish this work on the old system with sailing colliers would have required sixteen ships, and 144 hands to man them.

Steam started to dominate as cost advantages were beginning to show, and companies started to use their published accounts to demonstrate the benefits to potential investors. Hughes and Retter [1958, p.375] called the invention of iron screw steamers ‘an outstanding example of the force of innovation in the record of British economic growth ... innovation giving rise to innovation on a grand scale.’

As metal steamships came to dominate ocean shipping, productivity gains accelerated. As Ville [1986, p.356] explained, the last days of sail also witnessed an improvement:

Several maritime historians have alluded, in general terms, to improvements in the productivity and efficiency of the shipping industry ... Davis [1978] carrying goods by sea fell continuously throughout the last three centuries of sail as a consequence of productivity gains. He showed that the reduced threat from piracy meant that vessels required fewer hands and less armaments and that



speed at the expense of capacity was no longer essential. Improved shore organisation, especially with the construction of docks and harbours facilitated quicker turn-around times, whilst improvement in ship design also boosted the efficiency of the industry ... North too refers to a secular decline in ocean freight rates as a result of increased productivity in the shipping industry. In particular he draws attention to falling construction costs in ship-building, improved information concerning winds and currents, and the effects of technological change. Moreover, North cites better ship utilization as a result of trade expansion, the end of the Navigation Laws, improved harbour facilities and the growing use of agents.

However, the difference now was in the economies of scale which steamships allowed:

The fall in freight rates between 1869-1913 was driven by technical change which steadily reduced costs ... Perhaps the most important technical improvement was in the efficiency of steam engines ... The economic advantage of steam ships was compounded by economies of scale [Stopford, 1997, pp.48-50].

As shipping capacities and capabilities increased, greater economic advantage could thus be attained.

The new technology had a significant effect on freight rates:

Around 1850 the adoption of metal hulls and steam propulsion signified technological departure from the shipping technology of the preceding three centuries. The new vessels saved factor inputs and competition resulted in steadily declining freight rates [Harley, 1988, p.869].

Harley [ibid, p.862] demonstrated that the new industrial technology caused a 'revolutionary' decline in 19<sup>th</sup> century British freight rates, only modestly prior to the middle of the century, and then with more speed as metal steamships with steam propulsion were used in the latter half of the century. By the end of the century steam was the most cost efficient option. Industrial technology reduced shipping costs by rapidly lowering the price of metal steamships, which in turn lowered freight rates. However, owing to the competitive nature of the industry, these were passed on to the customer:



Since shipping is a highly competitive industry, productivity improvements frequently led to reductions in freight rates rather than increased profits [Ville, 1986, p.355].

Because ships had to compete, they couldn't reap the benefits of increased profits, as a competitor might offer a lower freight rate and ultimately gain the trade.

Sailing vessels continued to operate until the end of the 1870s, mainly due to the fact that the early designs of steam vessels required that extensive capacity be given over to coal on board to power them. Therefore, the further the vessel had to go, the more coal would be needed and so costs would increase. Sailing ships, on the other hand, were largely unaffected by the length of the voyage, and remained the lower cost alternative for a little while longer until better design of steamships. Thus, the ship-owners, Glover Brothers, stated in their annual circular [1864] that

in shorter trades all valuable goods are now carried by steam. The saving in insurance and in interest of money, and the facility of being able to depend on a given number of days passage, secure for steamships a preference that sailing ships will never recover ... In the long voyage trades steamers cannot compete with sailing vessels.

However, with further technological improvements, steamers became more cost efficient and performed better than sailing vessels on all routes in the later stages of the 19<sup>th</sup> century:

The argument by Graham and North is that advances in sail productivity kept pace with those of steam on the long-hauls and the average cost curve of steam did not fall below those of sail until the mid-1880s [Walton, 1970, p.439].

The timing of the change is supported by the evidence available from this study. Indeed, by the 1880s steel boilers were being fitted which increased the speed of ships, and consumption of fuel and space were economised:

Ultimately the far-seeing forward thinking ship-owners saw that the steamer had to displace the sailing ship as the new carrier of cargo. The most notable example of this change occurs on the Tyne, when in 1863 the sailing vessels clearing with cargoes, were 17,694 in number, but only 6,349 in 1883, having been reduced to nearly a third in a



period of twenty years; whilst the steamers with cargoes increased in the same interval from 1,410 to 8,680 [Keys, 1998, p.37].

This important change that was driven by advances in technology can also be illustrated clearly by analysing statistics produced at the time. Guthrie [1880, pp.190-191] noted that

the proportion of tonnage of sailing vessels and steam vessels using the port in the year 1862 was as follows: Sailing vessels 88 per cent Steam vessels 12 ... These proportions went on gradually altering year after year till steam took the lead of the sail, and stood in 1875 thus: Steam vessels 60 per cent Sailing vessels 40 per cent.

Using statistics from Hodgson [1903, p.318], the dominance of steam as the century closed can clearly be seen. In 1849 there were registered 1,443 sailing vessels with a tonnage of 326,824 on the Tyne, compared to only 187 steam vessels with a tonnage of 4,784. The dominance of sail did not change until the decade to 1879, when sailing vessels now totalled 484 with a tonnage of 150,562, and steam 603 with a tonnage of 232,157. By 1899 the situation fifty years early had been transformed. Registered sailing ships now counted for only 95 with a tonnage of 13,269, whereas there were 726 registered steam vessels with tonnage of 501,976.

The story is the same for ships entering and clearing the Tyne. However, it is not until the decade to 1889 that the dominance of steam is apparent in terms of the numbers of vessels entering or leaving the port, perhaps suggesting that Newcastle was one of the first ports to react to the new technology given the higher proportion of steam vessels registered at the port ten years earlier. The figures are as follows:

Entering the Tyne:

	<u>Sail</u>	<u>Tons</u>	<u>Steam</u>	<u>Tons</u>
1859	7,518	1,259,744	1,975	648,652
1879	8,611	1,548,021	7,556	3,762,009
1899	3,233	702,888	10,912	7,394,318

Clearing the Tyne:



	<u>Sail</u>	<u>Tons</u>	<u>Steam</u>	<u>Tons</u>
1859	19,650	2,984,729	975	283,204
1879	8,977	1,649,817	7,966	4,062,793
1899	3,220	693,913	10,981	7,319,101

What is perhaps most striking about these statistics is the decline in the number of vessels involved in the trade as their tonnage increased. Thus, advancements in the design of the ships meant that increasing capacities could be carried and economies of scale became advantageous for many entrepreneurs.

*Port and dockside improvement:* Besides the advancement of steam and ship design, big strides were being made with other technological inventions affecting the coal and shipping trade. Specifically related to the Tyne, port and dockside equipment development affected the progress of shipping as did dock improvements. These issues clearly require systematic investigation, which this study aims to do, since time in port was, for the ship-owner, time wasted. Prior to the advent of iron screw colliers, the need for dock accommodation was most important, especially the enlargement of dock area to cope with the volume of trade, and to protect the smaller vessels. As ships dimensions increased, protection became less important as there was less congestion in the docks. Better coal and cargo handling machines were developed, also reducing the number of vessels in port. The new and deeper docks were constructed and loading equipment developed to cope with the changes. According to Ville [1989, p.463], ‘in the first quarter of the nineteenth century direct loading became more efficient’. Rowe, [1969, p.111] describes what it was like in the early years of the 19<sup>th</sup> century:

A *‘scoop’*, a form of chute, was gradually coming into use to load coal direct into the holds of the smaller colliers which could proceed up the river Tyne.



A few years later the spout was enhanced by a ‘drop’.<sup>7</sup> This method saved much of the previous breakage of the coal, large coals being the most valuable. Finally, William Armstrong, a Newcastle man, built a hydraulic crane for Newcastle which meant ships could be unloaded more quickly and cheaply:

By 1815, port engineering was no longer a completely new technique. What was new, however, was the scale on which river improvement and pier construction came to be adopted. What was new, too, was the development of coal-handling equipment and the automation of dock plant and equipment. From simple staiths developed more efficient drops and spouts, leading later to hydraulic hoists and electrically-driven belt conveyors, [Rennison, 1990, p.137].

*Coal Turn Act:* The adoption of this new technology, however, was not without problems – politically as well as economically. Building a successful iron, steam collier was one thing, battling against the entrusted interests, practices and legislation of a coal-carrying trade moulded around the small wooden sailing ship was another. A significant archaic rule affecting the trade on the Tyne was the ‘Coal Turn Act’ (herein CTA). The Act was introduced so that preference was not given to any particular vessel. Each ship had to wait its turn, giving merchants more certainty about when their ships would sail.

This Act came about due to ‘long agitation on the part of the ship-owners of Newcastle who obtained in 1766 an Act ‘for the better regulation of the loading of ships with coals in the Port of Newcastle’ which entrusted to the Fitters and Hostmen, who controlled the whole coal trade, the regulation of the loading turn of all vessels in the Port [Hodgson, 1903, p.294].

However, with the advancement of steam to power ships and better coal handling equipment and port development, waiting in turn after the much slower sailing ships was not an economic option.

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<sup>7</sup> A mechanism by which a loaded coal-waggon could be lowered over the hold of the waiting keel or collier, and unloaded by the ‘dropping’ of a hinged flap at the bottom of the wagon, hence its name.



Sailing ship-owners relied upon the Coal Turn Act for protection, as steam ships would be able to load and return from their journey within the time it took a sailing vessel to set sail with a load ... [It was a] case of steamers versus sailing ships ... [The coal-owners could] not compete in the London market with the inland trade unless they had steamers [NTCP, 1864, p.lxxx].

No other port had this type of act and it was thought that there was little point in having a fast expensive ship that had to wait its turn in the Tyne. Sailing vessels took longer to dock and were dependent on the weather and tide as to when they could enter or leave, culminating in the 'turn' slowing down the faster steam vessels which did not have to rely on any factors to dock in and out. It was not long before steam colliery owners took matters into their own hands. To begin with, 'practical' measures were used to try and overcome the archaic rule. For example, the act was deliberately abused by some ship-owners as ships were loaded ahead of others who had been waiting longer – maybe due to the influence of particular ship-owners, or the use of bribes – the evidence is not clear. Thus the CTA became increasingly contentious, and sail ship-owners were not going to allow such abuse to pass unnoticed. One ship-owner complained that a ship called the *Morning Star* had been entered in the coal turn book before his ship even though his ship had arrived in the port three days earlier:

It seemed that the 'Morning Star' had been entered on the turn when she was somewhere about London, and six days before her arrival here [NTCP, 1864, p.lxix].

In another complaint, it was recorded that

the fitters almost invariably loaded the steamers before the sailing vessels. The *John Bowes* was loaded with a cargo for Grimsby and set sail. While it was gone another ship *William* started to be loaded. However, this ship had only taken part of her cargo on board when the *John Bowes* returned for another load. The Coal fitter moved the *William* and started loading the *John Bowes* again! The owners of the *William* complained at this treatment and the coal fitter was fined under the terms of the Coal Turn Act [ibid, p.lxx].



Unfortunately for the steamship owners, these abuses of the Act worked in antithesis and led to a tightening of the law surrounding its operation. As Guthrie [1880, p.316] tells us:

The Coal Turn Commissioners decided to enforce strictly the law that vessels should not be entered 'on turn' till they were within two miles of the Tyne Bar, and should be loaded in rotation as entered when for the same class of coal.

When these 'practical' measures failed, opponents of the Act turned to accounting information to engineer its repeal. The accounts of the TIC provided a vehicle for demonstrating the detrimental effects of the CTA on the Commission's own financial position. Thus, interested parties on the Newcastle Council pointed out that the TIC

suffer considerably in revenue by the Coal Turn Act trade turning away to faster cheaper ports... Large quantities are in consequence of this shipped at Sunderland which would legitimately and by preference come to the Tyne. The dues are thereby diverted into the pockets of the River Wear Commissioners [NTCP, 1864, p.lxxix].

The pressure for repeal mounted with the introduction of a special new staith for screw colliers. Complaints were made and cases put forward:

The Chairman said the Act was got for a state of things which did not exist now... It was quite unworthy of the present day... A very great change indeed had taken place in the trade since the Act was passed... The coal trade had not increased at that time to the extent it had now [NTCP, 1864, p.lxxx].

Steam colliery owners lobbied for the act to be repealed and in 1865 they got their way.

Ultimately, the circumstances of the trade, and the expense and inconvenience attending the delaying of steamships, induced the Tyne Commissioners, to take steps for the repeal of the CTA:

Thereafter screw steamers were loaded as they arrived, sailing vessels in their turn as entered, and this practice led to the adoption of the system by which shippers guaranteed to load within so many days instead of the very uncertain 'regular turn' without any obligation as to time, which had previously been the rule [Guthrie, 1880, p.316].



It was vital for the steamship owners that this act was repealed as they still had to compete with sailing ships; and the advantages of the newly developing rail system were becoming more apparent. The repeal of the Act increased both the certainty and efficiency of the operations with consequences for accounting. Less time spent in the port meant more shipments could be carried out. From a costing point of view, the costs of the operations could be more easily predicted. With this new information, the companies could use the information in their accounts to attract investors by showing that estimated costs of operations were much more accurate and a predicted profitable outcome more likely than before.

*Railways:* An increase in the use of steam and rapid development of railways increased demand for coal. However, the railways also posed a threat to the sea-sale coal-trade, the seriousness of which rested upon the relative quantities of coals that could be transported by the locomotive engines, and the attendant costs. Early on in the 19<sup>th</sup> century the new rail system wasn't even at a comparative advantage over the old rail incline system:

We may suppose that probably still more powerful engines may be used on the railways; so that the competition between the two modes of conveyance may be said to be very close, if the charges for each description of motive power rests upon the actual cost of each [Armstrong, 1864, p.48].

In comparing the locomotive system with that of fixed engines and inclines, using costing data, Armstrong found that

the locomotive system, although capable of carrying a much greater mineral traffic, is not on the whole, more economic than that of fixed engines and inclines as used now in this district [ibid, p.283]

However, railways did increase in efficiency. According to Keys [1988, p.12], the development of the railway system made it possible for coal,



mined in the Midlands, to be brought to London ... There was even talk of bringing coal from Tyne to the Thames by rail.

The potential advantages of rail transport were obvious. Even if it proved more expensive, supplies could be guaranteed, something the sailing collier could never achieve, dependent as it was on the vagaries of wind and weather. Change in the mode and organisation of the trade was inevitable if the carriage of coal to London by sea was to continue. As we saw above, Taylor [1852] was not at first convinced by the carriage of coal by steamships but later converted. Moreover, with the progress of steamship inventions carriage by sea continued successfully, despite the development of a rail network:

In terms of the work done, measured in ton-miles of freight carried, coasters did a larger job than the railways. They achieved this by responding to railway competition most effectively... Steam, iron and later steel hulls, screw propulsion, more efficient rigs to allow lower manning, all improved the coastal ship's cost profile [Freeman and Aldcroft, 1988, p.209].

Thus, shipping remained an important form of transportation throughout the 19<sup>th</sup> century and took precedence over rail in the transportation of coal internally even towards the end of the period. As Rowe [1973, p.11] observed,

Even towards the second half of the century, when the basic rail systems had been completed, the importance of the rivers was such that urban and industrial development clung to the rivers.

Indeed, a symbiotic relationship developed between the railways and the ports. In the early years, the railways were concerned almost exclusively with promoting the local carriage of coal. The difficulty of transporting coal to the point of outlet, particularly for those collieries located farther away, made the coal-owners of the district very anxious to have access to the Tyne by railway. Kenwood [1962, p.65] tells us that by the middle of 1828, 'roughly 44 per cent of the coal passing along the railway was for shipment.' Hence, in many cases rather than being a detrimental force



to the shipping trade, rail indeed complemented shipping:

The North-East ports were saved by the economics of transport. Although rail transport has ousted road, the carriage of coal by sea remained economical in comparison with rail and as a result the railways continued to act as feeders to the ports in spite of forming an outlet in themselves. The railways opened out districts of the coalfield previously inaccessible to the coal-shipping trade [Rennison, 1987, p.174].

These improvements in the region's transport facilities led to a rapid expansion of the carriage of coal for shipment coastwise and overseas. Moreover, despite the improvement of land transport facilities, coastal shipping remained as it was to do for a long time afterwards, a major artery of commerce, carrying huge quantities of coals.

There does not appear to be any evidence to suggest that the surge of investment in ports that occurred from the 1850s and 1860s was restricted by the fear of railway competition in the carriage of coal and other commodities. Rather, investment was successfully sought to pay for the advancement in improvements to rivers and docks demanded by the increase in seaborne trade. In fact, railway competition became less important as the coastwise trade declined in importance with the rapid growth of coal exports. Thus, the threat of railway competition never fully materialised for two main reasons: first, because of the advancement in shipping design and use of steam which speeded up shipping schedules; and second because of the growth of the coal export trade, which eclipsed the coastwise trade after 1850. The greater demand for Tyneside coal from abroad was fuelled by its relative quality and cheapness. Also with the opening of new pits closer to London, the Tyne was no longer the metropolis' sole supplier. The transformed situation was described by Shaw [1911, p.33]:

In 1859 the foreign shipments from the Tyne were practically the same as those sent coastwise... But in 1866 they rose to the extent of over 177,000 tons upon the previous year, and in 1867 were 178,000 tons more, in both years outstripping the coastwise shipments by 138,000



and 317,000 tons respectively.

*Costing systems:* In revolutionising the shipping industry, the new technology created a new range of factors with potential cost accounting implications. For instance,

from an operating point of view, steam enabled ship-owners to predict voyage time with much greater accuracy than had been possible in the days of sail [Boyce, 1995b, p.366].

Spraakman and Davidson [1998, pp.69-74] observed similar changes in relation to the Hudson's Bay Company in Canada that had a direct bearing on the development of control systems in the same period:

Between 1860 to 1914 the [Hudson Bay] Company experienced a decrease in uncertainty as communications and transportation modernised ... With improved communications and transportation accompanying decreased asset specificity and uncertainty, the cost of monitoring decreases which would lead to the increased use of management accounting monitoring.

The competitiveness of the market is another factor that has had a bearing on costing systems in other arenas. Hence, Solomons [1952, p.19] regarded the falling profit margins resulting from increased competition as an impetus to better costing systems in late 19<sup>th</sup> century America. Finally, there is the key question of the role played by accounting in technological innovation which has been hotly debated by many authors in relation to the industrial revolution as a whole [e.g. Edwards and Newell, 1991, Fleischman and Parker, 1991, 1997, Fleischman and Tyson, 1993, Boyns and Edwards, 1995, 1997, Boyns et al, 1996, Hoskin and Macve, 2000].

Fleischman and Parker [1997] emphasised the effects of technology on management accounting in the Industrial Revolution stating that:

Technological innovations were a matter of deep concern to entrepreneurs, because of the effect on profitability and they used cost accounting to aid them in decisions involving the procuring, tracking and comparing of their technological investments [p.69] ... Motivation for cost management was both a function of a perceived need for



securing greater efficiencies from existing methods, as well as for investigating the possible advantages accruing from the adoption of new technology ... Indeed cost accounting almost certainly contributed in a positive fashion to the decision making processes that determined the entrepreneurs choice of technology [p.222].

Fleischman and Parker [ibid] cite numerous examples of this in relation to iron, coal and textile companies.

The effects on accounting techniques were potentially just as great in respect of shipping, although there is a relative lack of research in this area. The main author in this field is McLean [1995, 1996, 2006a, 2006b] who concluded that the major advances in management accounting practice in the shipping industry occurred relatively late. By using the examples of two dominant shipbuilders in the North-East in the 19<sup>th</sup> century, McLean [2006a, p.1] examined the role of

accounting information in shipbuilders' decisions to replace wood by iron as the primary material of hull construction and thus bring about technological and organisational transformations of the industry.

He maintained that whilst it was true that by accounting calculations,

cost advantages made iron rather than wood ships increasingly attractive to ship-owners and iron shipyards were developed to meet the changing demand (Clarke, 1966, 1981, 1986, 1988) [ibid, p.3],

it was unlikely that the availability of this information was 'significant in explaining the different entry dates into iron shipbuilding' [ibid, p.6]. He argued that other factors influenced the decision of these companies to adopt the new technology as they entered the market at different times. McLean concluded that in the case of the two shipbuilding firms examined, personal factors such as 'working experience and skills, age, personality and business outlook are probable causal factors' [ibid]. In summary, when looking at the initial adoption of new technology in shipbuilding, accounting information does not appear to be the root cause in the early to mid 19<sup>th</sup> century.



Conversely, accounting information does seem to play a more of a part from the late 19<sup>th</sup> century when the pace of technological progression was at its height:

During this period of rapid expansion, the shipbuilding industry underwent fundamental technological and organisational transitions ... The ship as a product underwent a process of technological transformation in which sail power was replaced by steam power, and wood was replaced by iron, and then steel, as the main hull construction material (Clarke, n.d., p.33, Slaven, 1980, p.113) ... Changing technology led directly to significant changes in the structures of the workforce, management and ownership of shipyards [McLean, 1996b, pp.119-120].

In this period, McLean found that the 'practical men', the apprentice engineers who had learned on the job, were replaced by 'professionally trained engineers' [ibid, p.120]. The developing technology also drove improvements in accounting information. Thus, the pattern of development in the Sunderland shipbuilding industry

shows an evolution from systems based on integrated accounting, through to the production of memorandum cost data and to systems of contract accounting and costing incorporating financial and costing sub-systems ... (and) it is highly likely that a major factor (in this evolution) was the need for more extensive cost analysis in order to provide information for pricing decisions [McLean, 1995, 142].

Technology also produced an impetus to management accounting innovation in the first half of the 20th century:

Based on evidence from company and industry archives together with the industry and technical literature, our fundamental conclusion is that Doxford [shipbuilders] employed scientific management in conjunction with modernisation programmes, including the implementation of new welding technologies ... The coincidence of advances in welding technologies with the use of standard costs points to the importance of technology change and, continuing from the work of Fleischman and Parker (1990), lends support to the argument of Boyns and Edwards (1995: 48) that, 'accounting innovations were often the product of perceptive businessmen struggling with real problems'.

If the role of management accounting in the early shipbuilding industry is



uncertain, the extent to which managers developed their own costing systems to suit their own companies and environments in pursuit of efficiency and competitive advantage has also been questioned by some researchers in relation to the Industrial Revolution as whole. As Oldroyd [2001, p.22] relates:

The question of whether accounting encouraged or assisted managers and entrepreneurs in exploiting the new opportunities arising from the technological, demographic and market changes of the British Industrial Revolution, for example, has generated much debate. Despite a tendency over the last fifteen years to question its perceived shortcomings [e.g. Edwards, 1989; Fleischman and Parker, 1990; Boyns, 1993], most researchers still take the view that accounting proved an ineffective management aid to 18<sup>th</sup> and 19<sup>th</sup> century industrialists [Fleischman and Parker, 1997, p.8]. Miller and Napier [1993], for instance, argue that the concept of economic decision-making is far more recent. Bryer [2000] criticises the Economic-rationalist school for erroneously imputing decision-making as a motive when the true purpose of the accounts remained to promote accountability.

On a similar note, Hoskin and Macve, [2000, p.32] observed:

As argued recently by Boyns and Edwards [1997], the conventional wisdom in UK business history persists in concluding that there was little in the development of cost and management accounting techniques in UK businesses that has been shown to be significant to the development of those businesses before the end of the 19<sup>th</sup> century, despite increasing in recent years of the work of economic rationalist accounting historians.

Miller and Napier, [1993, p.638] looking at Wedgwood, state that ‘the costing exercise convinced Wedgwood that his double entry ledgers were simply wrong, and revealed to him that his office staff were cheating him.’ The main point of the costings, therefore, was in holding his staff accountable rather than in aiding decisions as they maintained other authors had suggested.

### **Legislative/regulatory environment**

The development of society in the North-East of England during the 19<sup>th</sup> century owed much to economic and technological change, with the improvements of



shipping methods and port development being critical elements. However, political factors also had a part to play. Moreover, the differing levels of government involvement and reform were major factors in how society in 19<sup>th</sup> century Britain was to develop. According to Davis, [1986, p.69],

the 19<sup>th</sup> century was a turbulent period of expansion, of changes and problems for which local administration had to be developed and tailored to cater for the needs of the new communities.

As described below, a debate has developed between historians about the manner in which the forces of ‘collectivism’ – government assuming responsibility for social and economic policy – and ‘*laissez-faire*’ – allowing the market to decide – interacted in British society in the 19<sup>th</sup> century.

These issues have been aired by Jones and Aiken (herein J&A), with Walker adding a critique of their study.

J&A [1995, pp.62-5] noted that

as Parker [1990] observes, most historians have treated the 19<sup>th</sup> century as an extended era of *laissez-faire*, noting relatively insignificant developments occurring in company accounting legislation.

However, they maintained that the reality was not so straightforward. These authors complimented and extended Parker’s work by using the works of A.V. Dicey, an eminent legal and constitutional historian of the 19<sup>th</sup> century. Dicey [1905] stated that British legislative history can be split into three distinct time periods. The first period from 1800-1825 was characterised as ‘Old Toryism’, in which there was not much change, where the emphasis was on ‘maintaining the status quo of the British Constitution.’ This was followed by a period of ‘Benthamism or Individualism’ (1825-1870) in which ‘the political and social policy of *laissez faire* was the basis for legislation’. Finally, the years 1870-1900 were marked by a policy of ‘collectivism’. This ‘period distinguished itself by a marked increase in government intervention in



social and economic affairs in Britain,' such as disclosure regulation for the railway industry and later insurance.

While Walker [1996, pp.306-7, 320] acknowledges along with many British historians, 'the existence of distinctive periods of *laissez-faire* and collectivism during the 19<sup>th</sup> century,' he believes that the picture portrayed by J&A is too simplistic:

It is however, quite incorrect to state that most historians have affirmed the Diceyan model ... Harris [1992, p.118; 1994, p.12] has recently asserted that from both a theoretical and an empirical perspective 'historians have almost unanimously concurred in finding Dicey's model misleading and unsatisfactory' ... The mere act of government interference in unlimited liability, disclosure and audit was, collectivist [but so too were earlier companies acts during the *laissez-faire* era] ... [These findings] throw doubt on J&A's assertion that Dicey's [1995, pp.62-63] thesis 'provides a highly plausible explanation of the development of 19<sup>th</sup> century companies legislation'.

In response to Walker's critique Jones [1999, pp.85-90] reaffirmed that contrary to Walker's assertions, we argue that *laissez-faire* was, on balance of historical evidence, a domineering influence on public policy in the mid-Victorian age.

Moreover, Jones [ibid] argue that discreet periods of *laissez-faire* and collectivism did exist, in contrast to Walker who sees it more in terms of mutual influences at work:

Our paper evidently did not endorse or employ the full Diceyan framework [advocating a tripartite split rather than one between *laissez-faire* and collectivism] ... Walker's view is consistent with the revisionists view that *laissez-faire* and collectivism were not separate opposing forces or periods, but influenced public policy *simultaneously* throughout the 19<sup>th</sup> century ... There is no doubt amongst all historians that the last 30 years was a period of 'collectivism' qualified in this instance to mean 'enhanced State intervention into the economy.'

Jones [ibid, p.92] went on to criticise Walker by saying:

Ultimately, we believe the *laissez-faire*/collectivist argument needs to be evaluated in the broader context of British culture and history, not just in terms of legislative developments and anomalies,

as they claimed Walker had done.



As far as the thesis is concerned, it tends to support Walker's findings that there were no really separate periods of *laissez faire* and collectivism, but of a drift in favour of the latter as the century progressed, with interventionist and non-interventionist forces working simultaneously. Interestingly enough, the progress of technology, the management of the Tyne and the increase in trade followed a similar pattern, with a slow and steady start moving to greater activity towards the end of the 19<sup>th</sup> century. All these elements of change involved accounting, perhaps suggesting an evolutionary link between the study's focal points.<sup>8</sup>

The increasing statutory regulation of company accounts by central government in the 19<sup>th</sup> century is an area that has spawned many studies. Most historians concur with Edwards et al [1997, p.4] that 'the emergence of the joint stock company gave rise to the need for published accounting information'. An early study by Hein [1978] and a more recent study by Maltby [1999] looked at regulation in the context of the development of the accounting profession. Hein stated that it was through statutory regulation that accounting control has more often than not been achieved [p.75]. Maltby [1999, p.33] examined the 'factors in the emergence of a new jurisdiction' in relation to the establishment of a statutory framework through the 1844 Joint Stock Companies Act, which provided the first steps to accountability within companies, and the subsequent climb down in 1856.<sup>9</sup> Storrar and Pratt [2000, p.259] enhanced the study of statutory regulation by considering

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<sup>8</sup> Better technology drove a greater output in trade. With this tighter regulation and control was needed, prompting better accounting information and management from those involved in promoting the trade.

<sup>9</sup> The 1844 Joint Stock Companies Act required companies to present an audited balance sheet at every general meeting of shareholders. In addition it was to be filed with the Registrar of companies. These requirements were abandoned by the Act for the Incorporation and Regulation of Joint Stock Companies, 1856, making it only a discretionary adoption. It was felt that as most of the shareholders were few and close to the company, publishing the accounts was not necessary as they had 'insider' corporate governance. However, as the century progressed, there became more shareholdings in companies and investors required information they could rely on. In addition to this the reliance on the courts to resolve matters diminished as their ability to deal with issues lessened as accounting became more complex. By the Companies Act of 1900, an audited balance sheet was required to be presented to the shareholders.



the causes of secrecy and the circumstances in which it [UK company law] came into conflict with accountability in registered companies in the UK (1844-1904).

They concluded that there was an increasing acceptance by directors of the need for accountability to investors but this often conflicted with the 'perceived need for commercial secrecy' [ibid, p.285]. J&A [1995, p.78], again expanding on an earlier paper by Parker [1990], explained changes in the statutory framework in the context of a 'distinct cultural evolution'.

Conversely, accounting change within local authorities during the 19<sup>th</sup> century has attracted far less attention. Studies by S and B Webb [1906, 1908] and Fraser [1979] looked at local government in Britain from the Glorious Revolution (1688/9) to the Municipal Reform Act (1835), and during the Victorian era respectively, from a distinctly political and economic point of view. Moreover, the main accounting studies relating to 'local government' have tended to take the form of an overview, some more detailed than others, of the statutory and accounting changes over the 100 years following the 1835 Act. Most notably, Coombs and Edwards' [1993, 1996] case studies describe the accounting methods of several corporations and explain why the accounting changes occurred. They also looked at the accounting procedures implemented by the evolving professional bodies, which by the end of the 19<sup>th</sup> century started to incorporate what we now call 'public sector accountants'. Other studies have been produced by Edwards [1992] and Jones [1989, 1992].

There have been a handful of studies looking at specific corporations. Livock [1965], for example, produced a descriptive analysis focussing on the progress and development of the accounting system of the Bristol Corporation for the years 1532-1835, but did not venture beyond the Municipal Reform Act [1835]. As detailed earlier, one study has been made of the Newcastle Corporation by Halcrow [1953],



but again it stopped at 1835.

Towards the end of the century a much more proactive role was taken by government towards regulation, implementing tighter controls over businesses and making public bodies more financially transparent and accountable through increasing legislation. As we saw earlier, this occurred in the railway industry and later insurance. Further, the Buildings and Friendly Societies Act was created prompting stringent disclosure and auditing requirements on these bodies. During the 1870s and 1880s all gas, water and electricity companies were required through legislation to publish financial statements. Public authorities too were made more accountable especially with the 1882 Municipal Reform Act. The detailed auditing and accounting provisions of this Act, which was perhaps the most significant piece of legislation affecting local authorities since the 1830's, were thus part of a wider trend affecting the accounting arrangements of public bodies in general. This Act 'strengthened and modernised the audit and account provisions of the earlier Municipal Corporations Act' [J&A, 1995, p.75]. Its effectiveness is evident from the TIC accounts, which displayed marked improvements in disclosure from 1882 onwards.

The level of political action or inaction had consequences for the functioning of the Tyne and so it is important to consider this factor in the study. The 1835 Municipal Reform Act in particular was a watershed in the increase in accountability of the management of the River, which continued throughout the rest of the century. Corporations were made more accountable to the ratepayers of their districts under the Act, which for the first time obliged them to publish accounting data. The extent of the Newcastle Corporation's neglect of the River was made clearer to the public when a new form of keeping accounts was adopted by the newly reformed



Corporation in pursuance of the Act. This is explored in further detail in Chapter 3. This data was exploited by opponents, comprising members of the press, Corporation and interested parties from the localities, who did not want to see the River neglected any longer. The River Tyne and its port facilities had been allowed to fall into neglect. Even though the majority of the Corporation's income came from the River, only a small amount was expended on its improvement. It will be shown in Chapter 3 that opposition fuelled by the increasing availability of accounting data put greater pressure on the Corporation. It did so through the mediums of public meetings, petitioning, and, most importantly, voicing claims through the press. The Newcastle Corporation, on the other hand, reciprocated by using the accounting data to justify the lack of investment in the Tyne. Therefore, the study supports the hypothesis that published accounts are used to promote the economic interests of interest groups irrespective of the explicit purpose for which that information was originally prepared [Watts and Zimmermann, 1979].

The importance of accounting information as a lobbying tool to promote the interests of particular user groups is a recurrent theme of the study, which lends support to the view of Watts and Zimmerman [1979, p.275] that 'political action generated accounting theory, not vice-versa.' As Edwards and Webb [1982, p.273] explained, 'Watts views [financial reports] as products of both market and political processes and the interactions among individuals and groups in these processes.' A similar rationale is put forward by Brief [1965, p.14] who argues that

in a *laissez-faire* economy firms will choose the set of accounting principles and practices that have the highest utility, given the goals the organization is trying to achieve and the constraints under which it operates.

In these ways, accounting can be viewed as a political process. Cooper and Shearer [1984, p.208] write:



Not only is accounting policy essentially political in that it derives from the political struggle in a society as a whole, but also the outcomes of accounting policy are essentially political, in that they operate for the benefit of some groups in society and to the detriment of others.

Francis [1990, p.7] too recognised the political dimension of accounting practice:

For Aristotle practices like accounting – those that mediate relations between people – would also be understood as political practices. Politics has to do with life in the polis, the communities in which we live. It has to do with how humans structure and enact relations with each other within these communities.

As far as the Tyne is concerned, the major stakeholders in the River included local and national government, the TIC, the traders and ship-owners, and groups of professionals such as the bookkeepers and engineers who were involved in the accounting process. In many cases the interests of these parties conflicted, and accounting was deployed as a political device ‘at the boundary between co-operation and conflict ... to act as both mediator and contestor’ in resolving disputes [Francis, 1990, p.10]. According to Francis [ibid, p.7], its ability to be used in this way is one of the inherent virtues of accounting practice, which is a theme that we shall return to in Chapter 3 when we examine its emancipatory potential.

### **Shipping: investment and operations**

This thesis focuses on the users and functioning of the Tyne from an accounting perspective, and so it requires some explanation of the shipping interests that operated on the River. A vast amount of research on the shipping trade in general has already been undertaken, most recently by authors such as Ville [1988, 1989, 1990] and Boyce [1992, 1995a, 1995b]. In this section we concentrate on the pattern of ownership and investment in shipping companies and the accounting implications, although the operations themselves are also considered.



The changes to the shipping system during the 19th century have been described by Kirkaldy [1914] as ‘revolutionary’. The growing scale of commerce in Newcastle required more capital in shipping. The underlying social and business relationships within the local community played an important part. The closeness of the entrepreneur to the shipping environment determined the level of understanding and need for decision-useful information. At the start of the 19<sup>th</sup> century ownership was localised and often cases of vertical integration<sup>10</sup> were seen within the shipping industry. Large firms became larger, and large and small firms amalgamated, with implications for the record-keeping. For example,

in 1849 the Smith enterprise was moved to a more convenient site down the river at North Shields, with the family combining for many years ship building, ship owning and ship repairing McCord, [1979, p.49]

A similar case was found with the sailmakers who invested to extend their business interests. Vertical integration was especially prevalent in the coal-trade where merchants and mine-owners invested in shipping and often owned the vessels in which they sent their coal. Investors were mainly locals and not many different parties were involved, reducing the overall risk of the investment. However, as the century progressed the type of ownership changed and spread to a much wider field of investors, and as a result, communication had to flow to a much wider geographical area.

At the start of the 19<sup>th</sup> century, shipping vessels generally belonged to small firms, comprising sole-traders, families or partnerships.<sup>11</sup> However, with the increase in competition, commercial enterprise, and cost of the new technology, only those

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<sup>10</sup> Vertical Integration is when a firm expands into adjacent stages of production – upstream or downstream.

<sup>11</sup> There may be more than one owner of the ship and cargo in a Venture. A Venture being a voyage to port[s] with the aim of making the best profit possible. However, this system gradually disappeared as trade became regularised with organised markets, regular freighting and fixed commission.



firms with the greatest funds tended to survive leading to a widening of ownership.

Kirkaldy [1914, pp.166-8] describes the expansion of firms post 1850:

The comparatively small shipping firms [c.1850] played a conspicuous part in our commercial development, and, at the time, made a deep impression on the trading world. Some of these firms began with one small ship, through whose success other ships were built; and those under capitalist ownership, these men staked their own capital and ran their own risks. In less than a couple of generations such firms, in more instances than one, built up a fleet of sometimes ten to twenty five useful ships which in their day made handsome profits.

Thus, the shipping industry evolved rapidly in the 19<sup>th</sup> century and was characterised by great diversity of function and complexity of organisation.

An article in the *Economist* [1958] stated:

The user of capital should be a very special type of man, capital being such a delicate instrument that only those who have special qualifications ought to utilise it.

With regards to shipping, Kirkaldy [1914, p.153] adds that the knowledge of the owner 'should be encyclopaedic, and his experience world-wide.' It is therefore perhaps

remarkable to note in the absence of formal institutions such as stock exchanges ... that so many different people were brought together in a single shipping venture. Not only business links but also geographical and social ties help to explain how investments were arranged [Ville, 1989, p.215].

The type of trader and ship-owner on the Tyne did change significantly aided by the 1862 Joint Companies Act, giving firms limited liability status. The Joint Companies Act of 1862, created in part to help Britain's trade by facilitating investment [Ville, 1989], resulted in 'annual investment in shipping [rising] very sharply from the 1860's' [Davis, 1978, p.175]. Limited liability companies gradually took the lead in the shipping industry, although they remained a minority in terms of numbers:

Most investment still came from individuals, there were only a handful



of partnerships and joint-stock companies. Joint-stock companies in the shipping industry were closely associated with the rise of the steamship which required much more capital [Ville, 1989, p.218].

These companies had the latest type of ship and were able to obtain the required capital, enabling them to show investors with their own balance sheets and dividends that they could operate at an advantage. Family ownership became less significant as future generations lost interest in the trade, and sold their interests to joint-stock companies which attracted investors from many varying professions. It was found that 'ordinary people' including clergymen, solicitors, physicians, and teachers who were attracted through professional and personal contacts and kinship, were investing their own savings in these ventures, hoping to make a greater return than the market interest rate at the time [Ville, 1989]. They were in part safeguarded if the investment turned out to be poor by the limited liability status of their shares.

Many owners met the initial cost of adopting steam power using the 64<sup>th</sup> system, which was a variant form of joint-stock ownership. Under the 64<sup>th</sup> system, shipping investors were deemed tenants-in-common, able to buy or sell a share without reference to the other owners. These firms relied on their network connections that generated interpersonal knowledge, commercial interdependence and reciprocal business deals [Boyce, 1995b, p.364-5]. Shares were bought by family, friends, local connections and commercial contracts:

Tradesmen linked to the shipping industry, such as sailmakers, blockmakers, ship chandlers and joiners ... put their money into many vessels, particularly coasters whose small size and greater age minimized the investment [Ville, 1988, p.76].

After paying management fees, all profits of these companies were paid out as dividends, except for very small amounts carried forward for working capital. This practice, which in effect prevented the accumulation of financial reserves, meant that the 64<sup>th</sup> system could not create a stable capital base from retained earnings. The



problem was exacerbated by the voyage account, which was the basis of distributions to shareholders, not making provision for depreciation.

As the type of trader and ship-owner changed, so did the manner of financial reporting. Limited liability companies with a permanent capital required annual periodic accounting statements. Traditionally, it had been common practice to make up accounts only on the completion of ventures:

Ventures were one of the earliest situations in which it was necessary to produce a computation of profit; for the profit computation would be the basis for determining how the proceeds of the venture were to be divided between partners. Because of the short duration of most ventures, however, it was normally sufficient to prepare one profit statement after all transactions had been completed [Carsberg, 1975, p.249].

This was the case under the 64<sup>th</sup> system:

When a voyage was completed an account was drawn up by the founder who, as 'managing owner' exercised wide responsibility for deploying, managing and supplying the vessel. The managing owner calculated his commissions from gross or net profit as the terms of his management contract allowed and apportioned the remaining profit or any loss to each 64<sup>th</sup>. Thus, at the voyage's end the managing owner submitted to 64<sup>th</sup> owners a profit and loss account listing as debits all operating expenses [port charges, stores, commissions and loading/discharging costs] and entering as credits the revenue earned [listed according to each voyage leg and detailing the type of cargo carried as well as the freight rate charged]. When the voyage generated a profit, this was entered as a credit in a general account [Boyce, 1995b, p.365].

Despite the lack of standards – Maclay [1910, p.22], for example, noted that 'it depends very much on the managers as to the manner in which the ship's accounts are kept' – round-trip voyage accounts remained the norm even after the use of steam-power became more widespread after 1870, and the 64<sup>th</sup> system of ownership declined after 1900, but such accounts were now subsumed within annual profit calculations:

The single voyage still remained the unit of accounting analysis; statements to shareholders covered voyages completed during the year



and sometimes included estimates of profits arising from pending voyages [Boyce, 1995b, p.365].

The perseverance with the traditional methods is perhaps unsurprising given their longevity. As Baker [1894, p.591], writing at the end of the 19<sup>th</sup> century, observed:

The simplest form of Shipping is that of a privately owned sailing ship. It is the oldest form of account and if properly kept is the foundation of all other Shipping Accounts.

With ownership spreading outwards, communication through networks of agents became vital in order to reduce the level of risk. Networks were formed that provided the required level of communication and a high level of trust, diminishing the importance of vertical integration.

Vertical integration reduces the cost of negotiating and enforcing contracts by specifying property rights and constitutional powers. However, if communication is sustained, intermediate contractual arrangements may act as viable alternative to vertical integration Boyce, [1995a, p.245].

In many cases agents were used to account for and manage the shipping interests of the investors. One highly successful shipping concern on the River Tyne was owned by the Henley family of Shields.<sup>12</sup> The Henleys hired agents in many ports, most of whom were used irregularly and were replaced if another firm offered a better or cheaper service. However one agent who was significant for the Henleys was James Kirton. As well as acting as a shipping agent for the Henleys, he also dealt with the financial side of the Henley business:

He submitted monthly accounts of business between them. He extended credit to Henley masters and paid many bills including those of fitters and ship repairers. In addition he paid monthly money to the families of Henley employees from the area Ville, [1981, p.159].

Most Newcastle owned ships had agents at destination ports for example at London thus extending the range of communication from port of despatch to the destination

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<sup>12</sup> Shields consisting of South and North Shields are two neighbouring ports to Newcastle along the Tyne coast.



port.

The volume of trade, size of commission and most importantly which party the shipping firm or agent had the best freight generating capabilities as reflected by local contacts with merchants and trade specific knowledge were factors in the decision to set up a branch office or employ an independent agent ... If shipowners had an advantage in terms of their knowledge or contacts within a specific trade they formed their own branch offices and modified the reporting procedures typical of agency agreements to ensure access to information [Boyce, 1995b, p.363].

Thus, Boyce [1995b, pp.375-6] concluded

that shipowners devised unique contracts based on inter-personal and inter-organisational knowledge to harness local information while minimising transaction costs.

The increase in trade and the creation of networks of agents resulted in accountability problems. By the third quarter of the 19<sup>th</sup> century the majority of shipping entering the Tyne was not based locally:

When they examined the amount of tonnage coming into this river year by year, and ascertained the ownership of that tonnage, it would be found that more than two-thirds of it did not belong to this locality, but to owners living away from the district. Seventy per cent of the sailing capacity entering that harbour year by year belonged to owners residing out of the Tyne, and as dock dues would be paid by ships frequenting the port and using the dock, they must come to the conclusion that seventy per cent of the taxation, whatever that taxation might be, greater or smaller, would be paid by people not living in the immediate neighbourhood used the river and contributed to its funds [NTCP, 1872, p.340].

This created a need to employ agents who could be trusted. According to Boyce [1995a, p.32]:

As the distance from the origin grew, asymmetry of information increased and investors would normally require progressively larger risk premia. Early steam operators were able to avoid these payments by attracting family and friends, who could rely on interpersonal knowledge, and people from their home port would could depend on commercial ties and reputational deterrence to prevent opportunistic behaviour.

Reliance on agents also produced a need for accounts to coordinate and monitor their



activities:

When ship-owners lacked contacts with merchants, they employed independent agents who possessed the requisite local knowledge, and developed co-operative inter-organisation communication channels to monitor operations and to inform planning decisions [Boyce, 1995b, p.362].

Another factor affecting the accounting process was the competitive nature of the trade, which necessitated close control over the companies' financial affairs and decision-making. In summary:

The existing nature of the business environment socially and economically meant that the decision-making infrastructure was already advanced. British ship-owners relied primarily on inter-personal and inter-organizational networks to bind information about business opportunities and mobilize resources needed to take advantage of them and was based on a high level of trust. Not surprisingly, ship-owners' cost-accounting systems were more detailed than merchants [Boyce, 1995a, p.2]

*Shipping operations:* The evidence available in the local archives of the Tyne traders themselves proved limited. In particular, what is lacking is continuous data over extended periods of time. The only exception to this is the Tyne Steam Shipping Company (herein TSSCo) which has already been reviewed by Northway [1972]. The TSSCo is unique amongst steam shipping companies operating from Newcastle in the middle stages of the 19<sup>th</sup> century in terms of the range of surviving archival data. It therefore provides a good case study of the problems faced by steam-ship companies in the early years of their development.

The TSSCo was formed as a joint-stock company with limited liability on 1 July 1864. At the inception, the TSSCo was owned by merchants, coal and steam ship-owners, already holding deeply rooted trading connections to the Tyne. These owners amalgamated their smaller interests, businesses, vessels, shipping knowledge and important, established trading routes such as London, Rotterdam, Antwerp,



Dunkirk and Hamburg within the company. The company was very much a local affair, and there was

a strong feeling that the steam-carrying trade of the Tyne should be in the hands of men, who are themselves largely engaged in, and thoroughly conversant with, the requirements of the Commerce of the district [DT.TT/63, 1864, Company Prospectus].

Two Tyne Commissioners and two local manufacturers were also members of the board, the former being Joseph Cowen (MP) <sup>13</sup> and R.W. Hodgson (whose book on the borough of South Shields is an important primary source used in this study), the latter, Henry Parker (lead-works owner) and William Hawthorn (engineer). The shareholding of the company thus reflected the 'local' importance of the company. Nominal capital was £300,000 in 12,000 shares of £25 each. Around twenty-five per cent of the 10,100 shares first issued, on which £18 was paid up, were held by established steamer owners. The intention was for the remaining shares to be sold to the 'public' locally because 'a shareholder at London, or Liverpool, or Manchester, brings little or no business to the company' [DT.TT/63, 1864, newspaper report]. This local knit of owners perhaps made the company stronger as they all had a common interest and would work together in the face of competition.

The TSSCo carried exports and imports of a mixed range of cargoes rather than bulk cargoes of few products. Also, the steamers operated regular routes at fairly fixed times, which was very important to their large passenger trade:

Most of the company's income came from the carriage of goods and passengers so that the growth in the number and size of their vessels at least created the opportunity for increasing revenue ... [Increasing] capacity was an important consideration ... [There was a] growth in the number of voyages as routes operated were extended ... [These conditions were dependent on] the prosperity of local industry and trade, so that there were a number of years [1866, 1877, 1885 and 1894] when national or purely local depressions contributed towards a fall in the quantity of goods carried [Northway, 1972, p.74].

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<sup>13</sup> A local brick manufacturer who later was a Newcastle MP and social reformer. He spent a great part of his life in the successful endeavour to restore the River Tyne.



The difficulty of mixed cargoes, however, was that the company faced running steamers half or part full. They could not risk leaving goods behind as ‘this invited competition and brought complaints from their customers’ [DT.TT/64, 1881]. Moreover, passenger trips had to run according to schedule even if the ships were half full. The TSSCo tried to solve these problems by separating out the passenger trade, and investing in dedicated cargo-steamers with larger capacity, meaning that they could now carry all their cargo in fewer dedicated vessels, and thus the risk of running vessels half empty at a loss was greatly diminished.

Perhaps the greatest challenge faced by the company’s management concerned capital investment decisions and capital maintenance. When the investment did not produce the return anticipated it was difficult to meet the expectations of shareholders in terms of dividends. As Northway [1972, pp.83-4] observed:

The decline in the efficiency of the company’s operations in the late 1870s arose not only because the level of profits declined but also because of changes in the size of their assets. In 1874 they had ventured into the Copenhagen trade and built a special steamer for this purpose. In the following year they took over the Yarmouth Line which also involved the purchase of two small steamers. All this meant a considerable increase in the size of their fixed assets, paid for by making additional calls on shareholders and by increasing indebtedness. At the same although profits were low they maintained the level of dividends, neglecting to set aside adequate amounts for depreciation, this maintaining the high book value of their assets.

With the benefit of hindsight one can see that these new ventures were ill-advised. On the Yarmouth route there was little demand for carriage. Competition on the Copenhagen trading route led to freight rates being reduced so much that by 1877 it was no longer viable, and the company disposed of its interests.

The TSSCo responded to these difficulties by rationalising its operations and reassessing its capital base:



This was followed by a number of years in which they put large sums towards depreciation, sold a number of their smallest steamers, returned some of the paid up capital to shareholders and concentrated their efforts on the most profitable lines. This led to a recovery in their profits and a considerable decline in the value of their assets from the early 1880s [ibid, p.84].

The company now realised that unguarded expansion was not the answer to achieving greater returns:

At one time we thought that by going out right and left opening out new lines that we would extend the business of the Company and increase the profits. Unfortunately they had the contrary effect [DT.TT/64, 1881].

Evidence exists in the 'Proceedings at Annual Meetings, 1879' of the company also attempting to reduce its costs [DT.TT/10, 1879]. Thus, the company's secretary, Richard Welford (who also was secretary and treasurer to the Shipowners Association) reduced wages and the size of crews, thereby producing a material saving in working expenses of over £1,000 a year. However, this reduction only took place the once during 1878, perhaps owing to the threat of losing good crewmen who could get better pay elsewhere. These examples illustrate the importance of management control and shrewd decision-making to shipping companies.

When reviewing the accounting implications of shipping operations, there is again limited detail. However, one article written at the close of the 19<sup>th</sup> century published in *The Accountant* is very informative. The first point to notice is that there was no uniformity in how accounting records were to be kept as each type of shipping company had their own way of accounting:

The accounts necessary to be kept will of course depend very much upon the way in which the ship is intended to be owned, either as one of a line of steamers belonging to a public company or as a single ship company or as the private property of certain individuals [Baker, 1884, p.590].

The author stresses the need for simplicity above everything: 'the great desideratum



in all ship's accounts is simplicity' [ibid, p.593]. He then goes on to look at the typical accounting system of a public company, which as noted before would be voyage based:

As regards the large public companies owning fleets of steamers, each company has a system of its own, and probably no two companies would follow precisely the same plan, but a very usual method is to have a separate voyage book for each steamer, in which the transactions of each voyage are set out in detail, commencing with the outfit in this country, detailing all the expenses and receipts in the various ports abroad, charging the insurance on ship and freight, and crediting any average claims that may have arisen, together with any returns of premium for laying up, and charging the wages of crew or portage bill, as it is technically called, together with the captain's wages and other emoluments (if any), and concluding with the expenses inwards at her home ports in this country. The outward and homeward freights received having been duly credited on the other side of the book, a balance is then struck, and the profit or loss as the case may be placed to the credit or debit of the Profit and Loss Account in the company's Ledger [p.591].

An interesting point of note is that the insurance for the freight was generally from port to port. Also, the law regarding the sea was different to that of the land in that one cannot claim ownership of the sea.

The author goes on to review the accounting techniques for a privately owned vessel, first stating the accounts necessary to be kept:

In vessels privately owned, the Ledger must contain the following accounts:- First Cost or Purchase Account, Voyage Account, Captain's Account, and a separate Account with each of the co-owners [ibid, p.593].

Baker continues to explain what each account is and how it should function starting with the First Cost or Purchase Account that recorded the initial purchase of the vessel:

The First Cost Account should be closed as soon as the last payment has been made to the vendor, and interest at 5 per cent per annum calculated to that date on each payment, and charged in the account. This will give the total cost of the vessel, which should then be apportioned amongst the several co-owners, according to the number of 64<sup>th</sup> shares held by each. The separate or private account of each co-



owner should then be debited with the cost of his share and the Purchase Account credited, which will close the Purchase Account [ibid].

Interestingly, the co-owners of the vessel were held liable for notional interest charges as part of the capital cost of the asset.

Once the ship has been purchased it could then be put to use and a voyage made in the expectation of a profit:

The Voyage Account will contain all payments made for the ship for outfit, insurances, etc and also the disbursements at each port abroad at which the ship may call during the voyage, together with portage bill, captain's emoluments, expenses at port of discharge inwards, and managing owner's commission. It will have to be credited with outward freight, freights received abroad, homeward freight, forfeited wages from the portage bill, sales of stores, etc [ibid].

As with the public company, voyages were typically accounted for separately. During the voyage the crew's wages and other disbursements were accounted for in the Captain's Account:

The Captain's Account will be charged with month's advance and monthly money to the crew, cash to himself and payments on account of his outfit, cash advanced to himself and crew at foreign ports, and for payment of seamen's wages on return home. It will be credited with portage bill less forfeited wages, his own disbursements abroad and his remuneration as master, the difference being the balance due to him. All these accounts should be kept with interest at 5 per cent per annum, which should be calculated up to the date on which the Voyage Account is closed [ibid]

This was a type of charge and discharge accounting, recording the moneys owing to or by the captain personally on the conclusion of the undertaking. Again, the account took interest charges into consideration. Finally, when the ship returned to the home port, a profit or loss could be determined and divided between the owners in proportion to their ownership of the ship:

The profit or loss on the voyage, being thus ascertained, should be apportioned amongst the several owners pro rata, and credited or debited to their separate accounts in the Ledger [ibid].



Journals, for their part, were not required and were often left out of the accounting process to save time and money:

In Shipping Accounts the use of a Journal is not by any means essential, and many large firms entirely dispense with it, thereby saving much time and labour; it is only necessary that the Cash Book and Ledger entries should be somewhat amplified, and the cross postings carefully made with a Ledger reference to each [ibid, p.594].

The issue of accounting for foreign exchange was a problem, suggesting a lack of rules of instruction for those who performed the accounting:

The question of foreign exchanges is often a great stumbling block to young beginners, and they are sorely puzzled when three or four different rates of exchange appear in the same account [ibid, p.595].

Thus, Baker explains how the shipping accounts should be kept, albeit using simplistic examples. In conclusion, he states that in general the accounts of larger firms are better prepared than those of smaller firms:

In the case of firms managing a number of ships, the auditor will probably find that the accounts are carefully and correctly prepared; but in the case of some single ship companies an improvement in bookkeeping is still much to be desired [ibid].

The overriding impression is of a lack of uniformity in accounting procedures across the sector.



### **Chapter 3: Control of the River**<sup>1</sup>

Chapter 3 illustrates how early 19<sup>th</sup> century municipal reform gave both the Newcastle Corporation and those who opposed it a lobbying tool to promote their interests by using accounting information. It thus contributes to a growing body of research highlighting accounting's potential as a mechanism for promoting social change.

The Corporation was heavily criticised for neglecting the necessary improvement of the Tyne during the first half of the 19<sup>th</sup> century, and control of the River became an issue that was hotly contested. Gallhofer and Haslam (herein G&H) [2001, p.29] showed how in the late 19<sup>th</sup> century 'radical political activists' used accounting data through the medium of the press as an 'emancipatory' practice to challenge the status quo. This study finds that the opposition to the established controllers of the River during the first half of the 19<sup>th</sup> century also used the press to achieve their goals, bringing accounting information to bear in support of their arguments. The 1835 Municipal Reform Act (herein MCA) exposed the neglect of the Tyne to public scrutiny by obliging local authorities to publish accounts. This gave the opposition to the Newcastle Corporation's monopoly over the River a clear argument to press for the much needed improvement works. In the battle for the control of the Tyne, the chapter demonstrates how accounting was used both as a 'mediator and as a contesteer ... at the boundary between co-operation and conflict' [Francis, 1990, p.10]. The Corporation used accounting data to justify inaction as did their opponents to promote a more proactive approach to the management of the port. As a result, the control of the River was taken from the Corporation and placed in the

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<sup>1</sup> Chapter 3 develops material published in Brackenborough [2003].



hands of the Tyne Improvement Commission (herein TIC) in 1850. The chapter then goes on to frame the issue within the idea of 'emancipation' through accounts, by way of a counterbalance to those researchers who emphasise accounting's historical role as an agent of social 'repression'.

### **Historical background**

In 1600, Queen Elizabeth's 'Great Charter' gave monopoly control over the coal trade and principal council offices in Newcastle to the Hostmans' Company <sup>2</sup> in return for a shilling tax on every chaldron [measurement of coal] of coal shipped from the Tyne. Six years later the Hostmans' Company gained the right to exercise Admiralty jurisdiction over the Tyne and with this came the responsibility to improve and maintain the River. Trinity House was established by royal charter in 1514. Made up from masters, pilots, seamen and merchant navy captains, their role was to regulate pilotage on the Tyne as well as to act as a general lighthouse authority and charitable organisation for the relief of mariners. Trinity House had control over the ports in the areas of London, Newcastle, Hull and Leith. However, in Newcastle their authority was undermined by the City Corporation:

The river jury <sup>3</sup> [who sat in the Court of Admiralty] was formerly composed of the gentlemen of the trinity-house, who were by far the fittest men for the purpose ... The corporation thwarted the river jury, that the corporation complied with many requests which the river jury had refused to comply with and that, in consequence of all this, the river jury of trinity-house gentlemen gave up in disgust ... then were succeeded by the cobblers, tailors, saddlers, slaters, smiths and the like [appointed by the Corporation] [Mitchell, 1823, p.17].

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<sup>2</sup> Mackenzie [1827, pp.703-4] traces the Hostmans' Company's origin back to a statute of Henry IV, in 1404 where they 'seem to have been a kind of mediator between buyers and sellers.' They loaded and unloaded the trade, at this time the bulk of which was coal and stones.

<sup>3</sup> This jury was made up of members from the various trades and bye-trades [see footnote four]. The majority were not qualified in river matters but made up the corporation committees by virtue of their position in political society. They were responsible and Mitchell [1823, p.18] implies subservient, to the Corporation and for conservation of the Tyne.



During the latter part of the 17th century, political allegiance amongst the town's merchant classes played a big part in the make-up of the Newcastle Corporation. Following the resignation of the brethren of Trinity House, the Corporation was free to use its ancient electionary powers to fill the positions available on the river jury with men from the mysteries and societies of Newcastle,<sup>4</sup> who were sympathetic to their views. Improving the River was considered beyond the means of the Corporation, and as a result it remained neglected. There was very little change in the way the Corporation was directed and controlled in Newcastle until well into the early part of the 19<sup>th</sup> century when the political climate started to change. Consequently, at the time Mitchell was writing in the 1820's, the river jury was composed of, 'only two or three ... [who] know any better how to conserve the navigation than they know how to navigate a ship to New Zealand' [ibid, p.12].

The Corporation was aware of the navigation problems of the River as large sums of money were spent on assessing its condition. The most significant report was by John Rennie, canal and river engineer, costing in excess of £2,000. His report as to 'the best mode of improving its navigation', produced in 1816, was to be a 'benchmark' for the future improvement of the Tyne [River Committee, 1836]. However, his cost estimate of £519,320 for improving the River [more than 10 times their annual total receipts] overshadowed the Corporation's judgement towards carrying out any major necessary improvement for years to come: 'The cost of his scheme was of major concern to the city and erring on the side of caution, the report was accepted but no action taken' [Port of Tyne, 1999, p.43].

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<sup>4</sup>There were 12 Companies called Mysteries, representing groups of traders. These were Merchants, Mercers, Drapers, Skinners, Tailors, Saddlers, Bakers and Brewers, Tanners, Cordwainers, Butchers, Smiths, Fullers and Dyers. The earliest trade incorporated in 1436 [Smiths] and the last in 1621 [Butchers]. There were also 15 societies called Bye-Trades. These were not Mysteries. These were Mariners, Weavers, Barber Surgeons, Cutlers, Shipwrights, Coopers, House Carpenters, Masons, Glovers, Joiners, Millers, Curriers, Paviours, Slaters and Glaziers. The earliest trade incorporated in 1426 [Coopers] and the last in 1656 [Paviours].



The state of the River, described as a ‘cursed horse pond’ [Mitchell, 1823, p.27] in the late 18<sup>th</sup> century, was worsening all the time through the inaction of the Corporation. There are numerous accounts of traders complaining to the Corporation that ships were running aground, or of being unable to enter the port due to the silting up of the River. Damage was being done to their ships. The comment of one trader was typical:

It [is] a most difficult thing to charter a vessel in the Mediterranean, though coppered ... [However] they said they received greater injury to their bottom in the Tyne, than at any other place they went to; and that its repair cost more than any addition which was made to the freight [NTCP, 1840, p.9].

The Corporation remained unmoved. As Guthrie [1880, p.5] explained:

The pressing necessity for enlarged harbour facilities to meet the requirements of modern commerce, and to withstand the competition of other ports was, apparently, not sufficiently felt. There seems likewise to have been a...great fear that the town’s revenue would be uselessly squandered in embarking on such an enterprise.

In Newcastle, foreign trade started to increase towards the end of the 1830s when the doors were opened to trade with India, China and the Levant. Improved shipping technology and design enabled ships to carry more and at a faster rate, increasing the volume of trade, especially with Germany and Holland. However, the Tyne was not well placed to take advantage of this. One councillor commented that, ‘the River did not afford that accommodation to the increasing commerce and trade of the port, which was imperatively demanded’ [NTCP, 1839, p.5]. A report of the Newcastle Corporation’s Committee on Trade stated, ‘the most obvious means of increasing the trade of the port, within the power of the Council, is the improvement of the River’ [ibid].

A comment made in the *Tyne Mercury* [1833], shows that things were being better managed elsewhere, such as on the River Clyde where



[River dues] are kept distinct from the Corporation's funds, and are laid out in deepening and improving the river and harbour and in discharging the debt of the trust'.

The situation on the Tyne improved after 1850, when, by an Act of Parliament [1850], the control of the River was taken from the Corporation and given to the TIC, purposely created to improve its management. The greater improvements which occurred after that date are reflected in trade figures from Johnson and Aughton [1925, p.40]. These show that the number of foreign vessels trading inwards to the port was 708 in 1843 compared to 1,477 in 1863. Similarly, the number of foreign vessels trading outwards from the port was 4,088 in 1843 and 8,074 in 1863.

What the Corporation did spend money on prior to 1850 in the name of improvement was called 'Pound Foolish' expenditure, because it was of little benefit to the River. For example, the purchase of a dredger, was described in the press as a 'DESPICABLE machine which, at an expense of £3,000 ... is only fit to clean out a gentleman's fish-pond, and perhaps not that' [*Tyne Mercury*, 1838]. Mackenzie [1827] tells us that the Corporation 'were so far roused to a sense of their duty' as to employ Rennie, and presumably the same went for Cubbitt, who compiled another report in 1837. The engineers who were asked to report on the condition and improvement of the Tyne often had little local knowledge; and although their engineering abilities could be applied to any locality, their commercial and financial knowledge could not. For instance, they 'had not sufficient knowledge of the traffic on the river to offer any opinion respecting it' [NTCP, 1838, p.6]. These engineers' estimates for improvement, based on vastly inflated London prices, created an over-prudent Corporation at times and caused them to err on the side of caution. This was the case in Rennie's report of 1816 and also Cubitt's report in 1837:

Extending the quay and applying the dredging machine to the river ... the sum [required] would alarm the Council ... Mr Cubitt calculated



that the works could not be conducted together at a less annual sum than 10,000/ ... [Councillor Doubleday] and the River Committee also, were of opinion that the two designs could be carried into execution at an annual sum considerably less: and this opinion they grounded on the fact of having made enquiries of builders and others, as to the prices of stone, labour etc. in this part of the kingdom as compared with the prices in London, on which Mr Cubitt had formed his estimates [NTCP, 1837, p.1].

The River was seen as requiring huge investment before any great benefit could be obtained, and the Corporation prioritised expenditure on the town. Indeed, it was accused of adopting a cavalier approach in its readiness to commit funds to improvement of the town:

It had been proposed to build new Town Courts, Corporate Offices and Judge's Lodging House ... [One councillor] had been astonished to hear one gentleman say, that not only might the ground in question be involved in this expenditure, but that they might expend any sum they pleased upon it – while the river Tyne, from which they derived the greatest portion of their revenues, and upon the improvement of which a large portion should consequently be expended, was to be left entirely out of consideration [NTCP, 1838, p.22].

Local and resident engineers also produced reports on the condition and improvement of the River Tyne, but perhaps it was felt by the Corporation that these men did not hold enough standing to convince the opposition to their River policy that they were taking the issue seriously. Consequently, eminent engineers were brought in from outside to survey the River that everybody already knew needed huge investment. The scale of the investment required meant that the Corporation would not be able to avoid debt and reduce costs, a policy they strongly adhered to. All the time and money spent on these reports was arguably wasted, as more often than not, the reports were buried, and little, if any, action was taken to improve this vital artery of commerce.



## Conflicts of Interest

As the product of the 1835 MCA, the newly reformed Corporation consisted of men from a wide range of business activities – booksellers, tanners, bankers, printers, manufacturers, lawyers, doctors, but only one ship-owner. The Corporation had no voice from other surrounding towns located on the Tyne. Towns such as South and North Shields and Gateshead were desperate to see improvement of the River. Also, the representation of nautical and trading interests on the Corporation who were willing to voice any concerns about the River was not significant, with most preferring to remain silent in order to remain popular with the rate-paying voters.

The majority of the Newcastle Corporation elect, made up of ‘fifty-six gentlemen’, had substantial property interests in the town, which helps explain their preference for efficient roadways and utility supplied streets over river improvement:

The Municipal Corporation, which owned and taxed the harbour represented none of these interests, and by reason of its legal rights to devote the proceeds of its petty customs duties for its own advantage, was even pecuniary biased against them all [Webb, 1908, p.724].

However, an article appearing in the *Tyne Mercury* [1833] suspected that the ‘real’ reason for the policy of inaction lay in the desire of the Corporation’s members to preserve the power they gained from their corporate position:

The annual average receipts of the Corporation for the eighteen years immediately preceding 1827, amounted to £38,142 while the annual balance in the hutch <sup>5</sup> [the amount left-over at the end of the year] never exceeded £2,000. Now if nearly one-half their income were curtailed [i.e. to be expended on the improvement of the River], it is manifest that their power, and various influence, would be considerably broken down ... This is sufficient to explain what has so long been a paradox to the public, namely, that many members of the Corporation, who are largely engaged in trade and manufactures, and are fully aware of the great general benefit that would result from the improvement of the river, do, not withstanding, in their corporate

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<sup>5</sup> ‘A large chest [that contained the town’s money] with nine separate locks, each of a different pattern. The mayor and each of the eight chamberlains (they were elected from amongst the burgesses and assisted the clerks of the chamber) had a key so that the chest could not be opened unless all nine were present together’ [Halcrow, 1953, p.152].



capacity, refuse their concurrence to any very expensive scheme of amendment, and thus, so far, counteract their individual private interests. They make this sacrifice rather than see the pomp and glory of the Corporation reduced to depend on £20,000 a year, or that their patronage should be in the least diminished.

For most of the members of the Newcastle Corporation, it seems that power and influence were too precious to lose.

The main argument of this chapter is that it was the publication of accounts that made the Corporation's neglect of the River visible to a gathering force of opposition (the press, councilors and petitioners mainly headed by the people of Shields). However, the Corporation also used the accounts to justify its policy of inaction. Thus, it can be seen that accounts were employed to contest the argument, and ultimately to resolve it in the Admiralty Enquiry that followed. These issues are now considered under three sub-headings: the case for change, the defence by the Corporation, and the proceedings of the Admiralty Enquiry that ultimately dealt the final blow, and placed responsibility for the River in the hands of the TIC.

*The case for change:* Early accounts of opposition to the Newcastle Corporation's inaction in improving the River go back to the 17<sup>th</sup> century. Typical was a series of papers entitled 'Conservatorship of the River Tyne' [published 1849]. The line of argument was based on the physical condition of the River. This can be seen from the writings of Captain Phipps, a well-respected 18<sup>th</sup> century maritime man, who considered the Tyne to be 'capable of becoming one of the finest rivers in the world, but which ignorance, inattention, and avarice' had converted into what he called a 'cursed horse pond' [Mitchell, 1823, p.27]. In another example there was a call for a general public meeting because 'the navigation is likely to sustain much further injury' unless something was done. Those invited, 'nobility, gentry, merchants, coal



owners and ship owners and all other interested in preserving the navigation of the river Tyne will attend' [Lawson, 1799].

Publication of annual accounts enhanced the accountability of the Corporation to the rate-payers. One can clearly see from the accounts of the Newcastle Corporation [see Figures 1-4] great improvement in the level of detailed disclosure, rendering the activities of the Corporation more open to social and political debate. In 1809 [Figure 1] the accounts, in a receipts and disbursements format, show very little detail. Most notable is the disbursement title 'General Payments' with a large sum of £16,413 [nearly half the total amount] and no further explanation. At this point in time the neglect of the River could only be seen physically by the eye, there was no available clear accounting information to contest Newcastle Corporation's lack of management of the River and the case remained the same 9 years later. By the time of the first publication to the freeman nine years later of the abstract in a 'Receipts' and 'Payments' form, there had been some improvement in the level of disclosure [Figure 2]. From these accounts it can now be seen that around £20,000 was received from river related activities, whereas on the payments side, very little appears to have been spent on the River as there was still no visible breakdown of figures.

The 1829/30 year end abstract of receipts and payments contained the first example of letters next to the numbers, as is demonstrated in figures 3 and 4, denoting a reference to a note attached to the abstract giving further detail of a particular amount. However, from the evidence available these accounts may have been drawn up retrospectively and the catalyst for adding more detail may have indeed been the Municipal Reform Act of 1834 or the Municipal Corporation's Act of 1835. I reach this conclusion for a variety of reasons. Firstly, when, at the Municipal



Investigation of Newcastle Corporation in 1833, the Treasurer who was responsible for producing the accounts was asked by the investigation committee:

What size was the slip of paper upon which the accounts were published, previous to 1809? [The Treasurer responded] The published accounts were very small indeed, before the year 1809, they only shewed the total receipts, total payments and the balance at the end of the year in three lines. [The investigation committee asked] Do you keep the books now upon a new method? [The Treasurer responded] I know of no new method of keeping the accounts. The same method has always been adopted in my time. The accounts have, for years, been entered by me [Municipal Investigation, 1833, p.8].

Although not conclusive, it does suggest that the accounts at the time of the investigation differed very little from the earlier ones as there was no mention of the additional notes which is quite a significant change. Another piece of evidence pointing to the fact that the concept of producing notes may have originated later than when they first appeared on the accounts comes from the same investigation, showing that accounts were not always prepared on a timely basis. The investigation committee asks:

Why did you go to the year 1829, instead of 1830, 1831, or 1832? When infact did you prepare that document? [The Councillor replied] As to the first question, I took 1829, because I had not the returns for the other years. I have only to reply to the second question, that the statements were prepared yesterday.

The third piece of evidence is the fact that, as it will be shown below, the accounts prior to 1835 were not signed during these years by those who prepared them or by the auditors who checked them, so, again, could have been prepared retrospectively.

It was around the early 1830s that the financial argument came to the fore that was to dominate the battle for power over the Tyne. For example, a petition was made to King William by the free burgesses of Newcastle upon Tyne in 1832 employing data from the accounts. This was election time of the Common Council,



and a majority of the burgesses,<sup>6</sup> who would have had access to the accounts, tired of the ‘Toryism in Newcastle’ [Cook, 1965, p.212], were ‘in favour of upsetting the controlling power of the Common Council,’ [ibid, pp.225-6]. The petition asked for an enquiry to be established into the mismanagement and poor state of the River. The petition was littered with proofs and references to the published annual accounts. For example, an extract from the petition read:

It appears ... that from the year 1821 to 1831, both years inclusive, a period of 11 years, the sum of 217,833*l.* 1*s.* 8  $\frac{3}{4}$  *d.* has been received by the corporation of Newcastle [relating to the river] ... that the paltry sum of 1,265*l.* 12*s.* 9*d.* only, was during the period, expended in either improving the navigation of the river, or facilitating shipping, trade, and commerce, or in deepening the bed of the river or otherwise ... [while] a clear revenue of upward of sixteen thousand pounds is yearly drained from the public without any check [Macgregor, 1832, p.4].

The monetary values used in the petition were based on the authority of Mackenzie’s History of Newcastle [1827], and stated that:

During the three years preceding 1827, the Corporation received from the river £74,764...out of which was paid £22,472...leaving £49,291... or an average annual income of £17,291...deduct £1,291...for the salaries of the harbour master and petty officers employed on the river, there will remain a sum of £16,000 a year available to the improvement of the river [ibid, pp.18-19].

From the published accounts, the amounts received from the River can be seen but at this time the amounts expended could not suggesting that someone perhaps favouring change of the status quo from inside the Newcastle Corporation passed Macgregor this information. It's accuracy is open to conjecture as there is no evidence available to substantiate his figure for expenditure. Prior to the 1835 reform the Corporation kept all the dues and revenues in one general account. With the majority of the revenue generated from the Tyne, and no distinction in the general account between

---

<sup>6</sup> ‘An inhabitant charged with the defence of the place in which he lived, and, in return for his military services, was entitled to certain privileges and immunities’ [Mackenzie, 1827, p.652].



the sources of revenue, it was harder to determine what amount of the funds came from the River, making it less likely to be returned. This revenue was administered with ‘cool and inexorable partiality’ towards the town [*Tyne Mercury*, 1833].

However, the neglect of the Tyne in favour of the town became clearer when the new form of keeping accounts was made public by the newly reformed Corporation of 1835, and when revenues and disbursements were classified under different heads and in more detail. Coombs and Edwards state that:

the new accounting requirements contained in MCA 1835 covered the responsibilities of the borough treasurer, and the financial reporting and audit obligations attached to the borough accounts. Jones has pointed out that the new system of fund accounting... required the assets and liabilities of the corporation to be distinguished from the individuals who it belonged to ... The treasurer was obliged to keep ‘true accounts of all the same sums of money by him received and paid’ [s.93] and the Act detailed the receipts and payments which might be entered in the borough fund account [s.92] [1996, p.30]

The 1835 accounts revealed that over £21,000 had been received ‘For Port and Harbour Dues’, whereas less than £8,000 had been expended on ‘Port and Harbour Charges’, with the majority of expenditure instead relating to town matters [Figure 3]. These accounts were headed ‘Charge’ and ‘Discharge’ for the first time, implying enhanced accountability of council members, notwithstanding that this terminology was subsequently dropped. The accountability of officials was further emphasised by the fact that the printed copies contained the names of officials to signify these were signed accounts. Another noticeable feature of the 1835 accounts is the attention to detail on the discharge side, with added notes of explanation as featured by the letters ‘[A]’ to ‘[N]’ and significantly a much greater disclosure in detail attached to the accounts, extending over a number of pages, since the beginning of ‘notes’ in 1829/30 where one folio sheet was attached. By the time the TIC took control of the management of the Tyne, the level of disclosure in the Corporation’s



FIGURE 1  
Newcastle Corporation Accounts 1808/9  
CORPORATION ACCOUNTS FOR THE YEAR 1809.

RECEIPTS.			DISBURSEMENTS.		
	£.	s. d.		£.	s. d.
Duty on Coals.....	3695	2 3	Interest of borrowed money .....	2795	8 0
Duty on ballast .....	8789	8 2½	Annuities.....	3021	15 2
Duty on Ship and Boat.....	834	3 8½	Conveyance of Ballast .....	3619	7 3
Goods and merchandise .....	542	17 2½	For Town's Works .....	4195	0 6
Freemen's admissions .....	44	0 0	Salaries .....	4126	4 3
Town's rents, &c. ....	15645	17 2	Town Clerk's Bills for Two Quarters .....	300	1 8
Monies raised on annuities .....	2755	0 0	Town Marshal's Bill of Disbursements .....	774	7 9
Monies borrowed on interest.....	3070	0 0	Stationeries.....	104	13 1
Balance of last year .....	124	16 7½	General Payments .....	16413	4 1½
Total.....	£35501	5 2	Total .....	£35500	2 7

The State of the Accounts, as closed by the Chamber Clerk, exhibited to and Objected by the Auditors on Friday.			The Statement obtained by the Auditors on Monday, Oct. 2, 1809.		
	£.	s. d.		£.	s. d.
Receipts as above .....	35501	5 2	Rents paid after the books were closed .....	1016	6 10
Payments ditto .....	35500	2 7	Monies remaining due to the Hutch .....	8343	6 11½
Balance .....	£1	2 7	Balance from the Chamber Clerk's Statement .....	1	2 7
			Total Amount carried to next year's Account .....	£9380	15 4½

Source: [Figs. 1-4], Newcastle Corporation, 1849, *An Account of the gross income and expenditure of the Corporation of Newcastle upon Tyne as published annually for the last forty years*, Newcastle: Hugh McColl.



**FIGURE 2**  
**Newcastle Corporation Accounts 1817/8**

CORPORATION ACCOUNT FOR ONE YEAR ENDING MICHAELMAS, 1818.

Dr.		RECEIPTS.		Cr.	
Balance from last year	...	...	...	£.	s. d.
To Cash for Dues on Coals	...	...	£6368 13 6	2066	10 0½
Conveying Ballast	...	...	12067 2 10		
Dues on Ship and Boat	...	...	1320 18 10½		
ditto on Goods and Merchandise	...	...	788 14 4		
for Freeman's Admission	...	...	20435 0 0½		
for Rents	...	...	73 13 4		
for Fines	...	...	8417 4 6½		
	...	...	490 14 7		
for Tolls	...	...	8913 18 0½		
raised by Annuities	...	...	450 0 0		
borrowed upon Interest	...	...	7488 18 0		
	...	...	2076 0 0		
of George Fothergill for Quay and Town Dues...	...	...	0604 16 0		
of the Water Bailiff for Ballast Warrants	...	...	586 7 0		
of him also, being the balance of his account, for the sale of a ship wrecked in the River, and weighed at the Expense of the Corporation	...	...	180 15 8		
for Mr. Mayor's samples	...	...	267 10 8		
of the Town Clerk, for one year's Interest upon his Bond	...	...	14 16 0		
of Robert Clayton, Esq., Mayor, for one pipe of Port Wine	...	...	42 0 0		
for a dividend in a debt due from Buntess, Burton and Co.	...	...	120 1 0		
	...	...	416 6 0		
			£43081 16 3½		
Paid the poor in the different Hospitals				...	...
them interest of money vested in the Corporation by sundries				...	...
Annuities on the sum of £43018 17 0				...	...
Interest on the sum of £44868				...	...
Burdies, being money borrowed upon interest paid off				70196 11 0	
Building committee's quarterly bills of disbursements				4727 15 6	
Town Marshal's ditto				670 0 2	
for conveying ballast				0340 2 8	
Salaries, gratuities, and law charges				6801 1 4	
Land-tax for the town's revenues				240 0 0	
Free-farm rent				101 15 10	
for cleaning the streets				400 0 0	
subscriptions to charitable institutions and for charitable purposes				418 15 0	
disbursements for public works				2808 11 8	
Tradesmen's bills				2887 10 3	
contingent disbursements				687 14 0	
				£42087 2 11	
In the Bank				£1260 4 0	
Hutch...				86 10 4½	
Balance in the Hutch...				1284 14 4½	
Total				£43081 16 3½	



FIGURE 3  
Newcastle Corporation Accounts 1834/5

AN ABSTRACT of the Chamberlain's Accounts of their Receipts and Disbursements of the Mayor and Burgesses of Newcastle upon Tyne, shewing the Income and Expenditure of that Body for the year commencing Michaelmas, 1834, and ending Michaelmas, 1835, with the Balance in the Huteh on the 5th day of October, 1835, and on the 5th day of October, 1835.

CHARGE.		£. s. d.	
Balance in the Huteh on the 5th October, 1834. ....		0	18 0
Receipts shewing the Income within the year, viz.—			
For Port and Harbour Dues—	£7801 0 1		
Ship and Boat .....	1083 17 4		
Goods and Merchandise .....	2187 1 1		
for conveying Ballast .....	8184 15 4		
Ballast Warrants .....	218 0 0		
Town Dues .....	128 10 4		
Quay Dues .....	764 10 6		
Quayside Toll .....	105 0 3		
Mr. Mayor's Samples .....	7 10 2		
Toll Thorough—	21463 0 1		
Butcher Market .....	732 1 0		
Vegetable Market .....	140 10 0		
Tyrpe Market .....	20 0 0		
Fish Market .....	40 0 6		
Fairs and Markets in the Town .....	127 12 10		
Fairs and Races on the Moor .....	65 12 0		
Stallage and Pickage—	1128 11 4		
Quay Side .....	40 8 3		
Butcher Market .....	27 12 3		
Hay Market .....	0 11 0		
of Walker Estate .....	3068 0 3		
of other Messuages, Tennts, and Tenements .....	3810 12 5		
Pews in St. Ann's Chapel .....	7 12 0		
Ballast Hill's Burial Ground .....	10 16 0		
Rent—	7735 1 2		
Fines .....	802 10 0		
Freemen's Admissions .....	46 13 4		
Auditties, money raised by granting .....	1100 0 0		
Interest, money borrowed at .....	2010 0 0		
Newcastle & Carlisle Railway, Interest on Subscription for 50 Shares, to 31st Dec. 1833 .....	317 12 10		
Sir Thomas White's Charity, loan to F. A. Paterson repaid, (see account marked O post) .....	20 0 0		
Repayment for Advertising Resolutions relating to the Dutch War, erroneously charged in last year's account of payments .....	5 5 8		
Available Arrears .....	1374 7s. 11d.		
		30850 3 2	
		£30850 0 11	

DISCHARGE.		£. s. d.	
Disbursements, shewing the Expenditure within the year, viz.—			
(A) For Port and Harbour Charges .....	7001 13 6		
N.B. This item includes 4462l. 11s. 8d. paid for conveying ballast and all expenses incident thereto, besides which, land belonging to the Mayor and Burgesses, of the value of above 5000l. a year, is used for ballast depots, without any charge for rent.			
(B) Route, Fines, Taxes, Cesses, and Tithes .....	500 14 10		
Annuities in respect of 47685l. 10s. ....	481 1 2		
Interest on 64400l. (ie. 8d., money borrowed .....	2583 2 8		
Ditto on purchase monies .....	114 0 0		
Ditto money borrowed at, paid off. ....	2992 0 0		
(C) Streets, Roads, and Lanes, rubbing, repaving, and scouring .....	4064 11 3		
(D) Trust Money .....	64 3 4		
(E) Hospitals .....	1018 7 8		
(F) Grammar and other Schools .....	476 18 0		
(G) Clergymen, Churches, and Chapels .....	377 0 0		
(H) Mr. Mayor's Salary and Mansion House Expenses .....	2351 13 7		
(I) Mr. Town-clerk's Salary, 620l. & Law Expenses, 250l. 10s. 4d. ....	744 10 0		
(J) Serjeants at Law, and Town Marshal's Salaries and Police Expenses .....	806 7 0		
(K) Various Salaries and Allowances .....	1804 14 2		
(L) General Repairs and Improvements .....	1046 10 11		
(M) Miscellaneous Disbursements .....	1062 17 1		
(N) Subscriptions and Donations .....	671 17 0		
Newcastle and Carlisle Railway, Two Culls of £10 a Share each, on 60 Shares .....	1000 0 0		
		30550 12 10	
Balance in the Huteh on the 5th October, 1835. ....		20 8 1	
		£30850 0 11	

(Signed)  
HENRY INGLEDEW, } Recievance to the Auditors.  
JOHN BROWN, }



FIGURE 4  
Newcastle Corporation Accounts 1847/8

A.V. ABSTRACT of the Treasurer's Accounts of Receipts and Payments for the

RECEIPTS.

	1847	1847, to 31st August, 1848	£	s	d
Balance on the 1st September, 1847	...	...	13	10	2
Receipts showing the Income from 1st September, 1847, to 31st August, 1848:—					
For Town and Quay Duties:—					
For Town Duties on Coals	...	13046	3	1	
Harbour Duties on Ship and Boat	...	2224	11	7	
Town and Harbour Duties on Goods and Merchandise	...	2878	2	2	
Conveying Ballast	...	13150	0	4	
Deduct paid conveyors	...	6341	18	11	
		6808	7	5	
For Ballast Warrants	...	549	18	0	
Licences to Ballast Keelmen	...	0	19	0	
Quay and Town Dues	...	2468	13	6	
Use of the Steam Boat Jetty	...	10	13	2	
		27997	7	8	
For Tolls:—					
Thorough Toll	...	2070	0	0	
Compensation for Lien of Thorough Toll	...	586	13	4	
		2556	13	4	
New Markets:—					
For Butcher Market Rents	...	1345	13	6	
Vegetable do. do.	...	260	2	6	
Stallage and Stallage do.	...	360	0	0	
		2018	19	0	
Cattle Market:—For Stallage Rents	...	451	13	1	
Goat Exchange:—For Stallage and Stallage Rents	...	9	7	0	
Weighing	...	501	0	1	
Rents:—Of Walker Estate	...	3623	7	11	
Other Lands, Tenements, &c.	...	6771	1	0	
Ballast Hills Burial Ground	...	23	17	0	
		9318	5	11	
Fines:—For Fines on Renewal of Leases	...	247	2	9	
At Hay Market	...	3	4	0	
Quey-side	...	7	3	5	
		0	8	2	
STALLAGE AND TOLLS:—					
For Fairs and Markets in the Town	...	42	13	10	
Fairs and Rents on the Town Moor	...	136	13	6	
Stallage Rents on the Sandhill	...	13	4	4	
Fish Market	...	55	6	8	
		227	19	2	
For Freeman's Almshouses	...	40	0	0	
Sales of Printed Ward and other Lists	...	1	14	0	
Interest on £4,300, secured on the Lunatic Asylum, Income Tax deducted	...	174	15	0	
Fines, &c., applicable to the County Rates	...	216	16	0	
Watch Rates for the Borough	...	373	19	3	
Lighting Rates for ditto	...	1492	7	0	
Paving and Watering Rates for ditto	...	1489	2	0	
Of Newcastle and Carlisle Railway Company, 1 Year's Dividend on 30 shares	...	160	0	0	
Newcastle General Cemetery Company, 1 Year's Dividend on 30 Shares	...	67	10	0	
		6194	3	0	
For Property sold	...	5130	0	0	
Money borrowed at Interest	...	1395	0	0	
Interest on £20,000, advanced to the Newcastle-upon-Tyne Port Act Commission, at 4 per cent, to 31st October, 1847	...	225	11	4	
Balance of Account Sales of 74 Shares in the Alston Branch of the New-castle and Carlisle Railway	...	18	0	2	
Of Bankers for Interest on Account	...	45	1	0	
Ditto for Balance in the Bank, 31st August, 1847	...	63	3	6	
For Balance due Bankers, 31st August, 1848	...	660	0	11	
		60304	18	11	

Borough of Newcastle-upon-Tyne, from 1st September, 1847, to 31st August, 1848.

EXPENDITURE.

	1847	1847, to 31st Aug., 1848	£	s	d
Payments showing the Expenditure, from 1st Sept., 1847, to 31st Aug., 1848, viz:—					
(A) For Port and Harbour Charges, viz:—					
Salaries and River Charges	...	6128	3	6	
Importing the River, under the Direction of the River Committee	...	1300	0	0	
Deduct for Credit sold	...	5128	3	6	
		10824	9	5	
(B) Trust Money	...	114	3	4	
(C) Hospitals	...	1171	19	5	
(D) Rents, Fines, Coates, and Tithes	...	1024	14	3	
Annuities in respect of £18,350, &c. &c.	...	1441	3	8	
Interest (including £2460, secured on the Lunatic Asylum) in respect of £131,051, &c. &c.	...	5084	14	0	
(E) Grammar and other Schools	...	158	0	0	
(F) Clergy, Churches, and Chapels	...	110	0	0	
(G) Judges' House Expenses	...	144	11	0	
(H) Mr. Mayor's Allowance and sundry Expenses	...	1040	14	4	
(I) Town Clerk's Salary, and Law Charges	...	1016	0	0	
(J) Sewerage-at-Mace, and the late Town Marshal, Salaries and Pensions	...	190	0	0	
(K) Various Salaries	...	1281	18	0	
(L) Subscriptions and Donations	...	1041	11	4	
(M) Butcher and Vegetable Markets	...	900	18	7	
(N) New Corn Exchange	...	303	0	0	
(O) Cattle Market	...	163	15	5	
(P) Streets, Roads, and Lanes, mending, repairing, and scavenging	...	7018	0	0	
(Q) Town Moor Improvement, Annual Payment	...	400	4	0	
(R) General Repairs and Improvements	...	3540	7	1	
(S) Miscellaneous Payments	...	652	10	8	
(T) Payments formerly made out of the County Rate	...	4829	18	3	
(U) Watching the Borough	...	6829	6	11	
(V) Lighting Ditto	...	2617	12	8	
(W) Paving and Watering Ditto	...	3393	0	0	
(X)		54847	10	10	
(Z) Ordinary EXPENDITURE		6231	9	0	
Property purchased, and Expenditure under the Abandoned Town Improvement Act	...	1740	0	0	
Money borrowed at Interest, paid off	...	50	0	0	
Sir Thomas White's Charity, on account of	...	...	...	...	
		60304	18	11	

(Signed)  
ROBERT USHER,  
GEORGE BURDIS,  
CHARLES RAYNE,  
Auditors.  
WM. ARMSTRONG, Treasurer.



accounts was even greater than in previous years, but with the same visible result that river income clearly was much greater than what was being spent on her improvement. Thus, the 1848 accounts revealed around £23,000 being raised from the River with only around £10,000 expended on it, including £6,429 spent on improvements [Figure 4]. The number of payment headings had now expanded to ‘[A]’ to ‘[Z]’ again with further details given in numerous sheets attached to the abstract explaining the figures. Therefore, extant accounting information shows clearly how reluctant the Corporation was to direct any substantial expenditure towards the improvement of the Tyne, even though there was great pressure and increasing criticism from a growing opposition for them to do so:

We cannot wonder that feelings of the public should be most sensitive on a port of such vital importance to the interests of the community at large [Armstrong, 1836, p.1].

One of the main activists using the accounting data was William Mitchell. He wrote during the 1820s and 30s in the *Tyne Mercury* newspaper under the alias of the infamous ‘Tim Tunbelly’ or ‘Peter Putright’. The letters of the former were later compiled and published in a book [Mitchell, 1823]. He invited comments and promoted awareness through the medium of the press. G&H, [2001, p.29] showed how in the late 19<sup>th</sup> century ‘radical political activists’ used accounting data by the medium of the press as an ‘emancipatory’ rather than ‘repressive ... praxis’ and they noted ‘how few studies have [articulated] accounting in the context of social struggle’. Similarly, this study finds that the opposition in the case of the River Tyne during the early 19<sup>th</sup> century also used the press to achieve their goals. Cook [1965, p.213] refers to Mitchell as a ‘radical journalist’ who was politically opposed to the Tory regime. Mitchell attempted to develop public awareness of the state of the Tyne, and stimulate opposition against current practice, so that positive steps could be taken



to improve the River, which would ultimately benefit Newcastle as a whole. Mitchell [1823, p.121] commented that:

The corporation has received this year [1822] the enormous sum of £19,148. 6s.7d. from dues, & c. from the Tyne. Have they, then, expended a single farthing on the improvement of that river? There is no notice of any such expenditure in the accounts!

In the example, Tunbelly clearly shows the amounts received from the river, which could clearly be seen from the accounts. However, he does not mention what was expended in terms of a figure, as I have argued above, this was not disclosed and therefore wouldn't be available to state at the time.

The development of the argument for change can be seen when a petition was lodged with the Corporation almost 20 years later by 120 of the oldest and most respected mercantile firms, bankers and tradesmen of the borough, significantly a few years after the 1835 MCA. They complained that the large proportion of the Corporation's revenue derived from the River was not allocated in a fair manner and in relation to the amount generated by the River. As a result the River was not being improved to enable newly formed trading relations to prosper. From the published accounts the petitioners found that the gross revenue from the River during 1837-39 to be 79,575l.6s.4d., and the total expenditure, which now could clearly be seen, on improvements to be 35,168l.9s.7d.. This meant that there was on average £14,802 excess each year received from the River but which was spent elsewhere. The petitioners then looked at the level of rates levied on the town and found that £10,689 was raised but £28,418 expended on the service of the town, such as improvement, watering, lighting, and scavenging. This meant that on average £5,909 excess each year was spent on the town but not raised by the town.

Opposition also came from disaffected councillors who were aware of the pecuniary advantage of the River and the handsome return the Corporation received.



They pressed hard in Corporation meetings for further revenues to be voted to the River Committee basing their arguments on the available accounts. One councillor said:

Let then [the Corporation] take the book of their receipts and expenditure, and ask themselves where the revenue which they had to expend came from? In the balance sheet, the first class of receipts were, port and harbour dues on coals, ships and boat, goods and merchandise, and for conveying ballast by which 19,975*l.* were brought to account. Now that large sum came directly out of the river. If the river were dried up to-morrow, not one farthing of that 19,900*l.* would they get [NTCP, 1839, p.8].

An 1840 'Statement Respecting the Port of Newcastle upon Tyne' by Dyson, Hall and Parkes, Parliamentary Agents opined that

The complaints made of the present system seem borne by the statements of the official servants of the Corporation [who used the accounts] as well as by their published accounts.

Another councillor believed that:

The Council would not find a safer nor a better investment; and he was not alone in thinking that it was to the river they must look for improved commerce and trade in this port; and that they should be careful to augment the great artery which supplied them with the larger part of their revenue [NTCP, 1845, p.74].

One councillor in particular (George Straker), who was a Newcastle merchant and user of the River, was a very outspoken activist in the Corporation. He used accounts as a basis for his allegations made against some members of the Corporation over a number of years, and accused the engineer of the River with mismanagement, misconduct, jobbery, and waste. When altering a road in a field at Walker, 'which cost a considerable sum, and no account of it in the engineer's accounts', the amount was entered in the groins account, i.e. a river account. Straker held that the alteration had nothing to do with the groins, and thus the river, but was made for the convenience of a public house and should not be placed in this account. The River Committee knew nothing about this expenditure supposedly made by them: 'It surely



cannot be understood, that when money is given for the river, it is to be wasted in this matter' [NTCP, 1839, p.103].

The River Committee also came under heavy fire:

[The River Committee] were not particular in the expenditure of the money awarded to them. They gave in an estimate for one thing, and spent the money upon another [NTCP, 1841, p.122].

But the River Committee had all along mismanaged matters: 'A great sum had been lost ... Hunter's Quay had been pulled down four times and rebuilt' [NTCP, 1842 p.122]. Even though these allegations were not proven, the episode, which was highly publicised at well-attended public meetings and in the local newspapers, increased the distrust in the Corporation's accountability.

Strong opposition also came from interested parties using the Tyne in areas surrounding Newcastle who did not have a voice on the Corporation. As mentioned above, the towns of the Shields and Gateshead strongly argued that the River suffered due to the relative financial advantage the inhabitants of Newcastle enjoyed over their neighbours. However, 'petty jealousy of sister towns' influenced Newcastle councillors who were unwilling to spend what they saw as Newcastle income on other towns on the River [Macgregor, 1832, p.117]. It was argued that the seaward boroughs' 'just influence in the confederation [must be] heartily acknowledged' and the 'incubus of clerical seigniorage put to flight' before any working agreement could be reached [ibid]. The Shields people petitioned the House of Commons for the control of the River Tyne to be taken from Newcastle Corporation altogether on the basis that,

1<sup>st</sup>, that this body had mismanaged the river; 2<sup>nd</sup>ly, that it had grossly misappropriated its revenue; and 3<sup>rd</sup>ly, that the powers and authorities by which these deeds had been committed, should be transferred to new hands [NTCP, 1849, pp.50-1].



*Defence by the Corporation:* Just as information in the published accounts was used to attack the inaction of the Corporation, the same accounts were utilised by the Corporation to justify their lack of expenditure on the Tyne. Support was generated for the Corporation's 'Penny Wise' system of avoiding debt and reducing costs based on accounting data. One river engineer, Richardson [1836, p.10], reporting on the Tyne commented that

the first report of the Financial Committee has been published and shows plainly enough, that any considerable outlay for the improvement of the River, is wholly impracticable,

owing to the inadequate state of the Corporation's funds. However, in his concluding comments he did acknowledge that

where improvement is practicable, it would be unwise to withhold the attempt given any over scrupulous consideration of expense, for in the preservation, if not the improvement of the navigation of the Tyne, Newcastle is entirely dependent [ibid, p.15].

The Corporation vote, dominated by the purse holders (the Finance Committee), believed that the River was improved enough to accommodate increasing trade. The accounts also proved that there was no money available to fund improvement. For example, it can be seen from the accounts previously shown for 1834/5 [Figure 3] that the balance in the hutch was only £22. This implies that there was very little money over and if they were going to avoid debt then doing nothing more was the only way forward. Further,

they could not borrow money for the river. It was contrary to the letter and the spirit of the Municipal Reform Act. They were not to expend capital for outlay over revenue [NTCP, 1839, p.3].

The Municipal Reform Act [1835] stated that revenues that ought to be applied for the public advantage should not be diverted from their legitimate use, and not be squandered for the benefit of individuals. Hence, the 'spirit' of the Act refers to corporations using their revenue appropriately instead of spending it wastefully and



making up shortfalls by borrowing. At a Finance Committee meeting, one councillor commented that the Corporation

had expended more than their revenue by 4000l during the last 4 years, and had run that much in debt. Now was it not more prudent to pay off a portion of that balance, than to go on running into more debt?  
[NTCP, 1845, p.60]

This same councillor later criticised the River Committee for continuously overspending their allocated part of the budget, and he claimed that the expenditure of the River Committee brought no benefit:

Why, there was no possibility of binding them down to their allotted revenue; much less to any intelligible or tangible plan of expending it upon the river. The Corporation would not only be condemned, but justly so, if they continued to disburse enormous sums upon the river, year after year, from which, after all, no proportionate or substantial benefit was derived [ibid, pp.72-73].

More pressure was placed on the limited funds for River improvement in 1846. The usual policy of the Finance Committee of the Corporation was to estimate total revenue, make allocations for 'unavoidable' expenses, and then divide the difference (often equally) between the River and Town Improvement Committees. In 1846 the Corporation was able to justify their policy of revenue allocation through what was considered a 'more wholesome principle' to their budgeting system, the creation of a surplus fund of £2,000 to cover any 'unexpected calls upon the corporate funds', 'public improvement' or to 'be applied in the reduction of the debt'. This approach reduced the funds available for river improvement further [NTCP, 1846, pp.379-80]. However, this new policy was overhauled in 1849 due to the far poorer state of the Corporation finances:

The Finance Committee do not think it prudent to appropriate more of that amount than can by possibility be avoided, [and so the Committees were] limited as nearly as possible to the amount of their fixed charges ... The Finance Committee are aware that such a limitation would put a stop to all river works [NTCP, 1849, p.14].



By the end of the 1840s the situation relating to river improvements had reached breaking point.

*Admiralty Enquiry:* Dissatisfaction over the conditions and control of the River became so acute that in 1849 a Parliamentary Bill was deposited by the Shields people opposed to the Newcastle Corporation's inaction. This proposed to take control and dues of the River out of the hands of the Corporation of Newcastle and entrust them to Commissioners elected for the purpose. The Corporation, seeing the opposition's bill as a threat to what they viewed as their 'hereditary rights to river dues', and fearful of losing the voting power and ultimately the large revenue of the River to a Commission representing interested parties outside Newcastle, framed their own Bill – The Tyne Improvement Bill, 1849. In the latter it was argued (as before) that under the concept of prudence, there were insufficient funds to increase expenditure on the River, and in any case the Corporation was doing enough. The opposing bills sparked two 'Admiralty Enquiries' in 1849. The minutes of Newcastle Corporation during the time of the first Enquiry typically show the Corporation's attitude:

... It is evident that change is going on [to the River] ... The assertion that the expenditure upon the river formed a good investment for money, involved a bad principle ... Investments should be made advisedly, not incidentally ... He believed that [the River would not be taken from their control] unless the Council became lax and inattentive [NTCP, 1849, p.47].

Captain Washington headed the investigation into the management and condition of the River. He gave an account of the various river dues collected by the Corporation and the manner in which they had been expended. Ultimately, it was accounting data that was chiefly drawn on by both parties in these investigations to contest the issue. The enquiry found:



That on average for the past seven years the income derived from the river has exceeded 26,000/ a year, while the sum laid out in improvements has been less than 5,000/ a year ... From an inspection of the Corporation's accounts of the last year it seems that the receipts from the river were 27,907/ and the expenditure, including salaries &c. 10,824/, showing a balance otherwise appropriated of rather more than 17,000/. In the column of payments it will be seen that the cost of watching the borough for the past year was 6,229/, whereas the rate levied for watching was only 3,774/ ... thus showing a deficiency of rates of 17,447/ [A.E., 1849, p.3].

Captain Washington concluded that:

According to an abstract of accounts which had been put in by the Treasurer to the Corporation, the whole amount received from the river since 1809 [when the accounts were first printed] had been 957,973/; whilst the whole sum laid out on the river; including all charges for conveying ballast, salaries, management, &c., during that period, had been 397,719/ – the difference between those two sums, exceeding half a million of money, having been appropriated to the lightening, paving, watering and scavenging the streets of Newcastle [AE, 1849, p.4].

A report in the *North and South Shields Gazette* shows the influence of this investigation on the fate Tyne:

The evidence of gross mismanagement of the River Tyne and misappropriation of funds levied for its conservation was so perfectly astounding to the Admiralty Court ... that the conclusion arrived at by the Admiralty was that such evidence had never before been heard respecting any river, and that this important harbour and river should not be trifled with any longer [1850].

Ultimately, it was decided by Parliament that, under the River Tyne Improvement Act (1850), the control of the River should be taken from the Corporation and placed in the hands of the TIC. Accounting data had served as a powerful lobbying tool in the campaign against the Corporation, which lesson was not lost on the TIC's own critics during the second half of the 19<sup>th</sup> century. Perhaps building on the success of the campaign, petitioning against the TIC's policies was even more vehement, with accounting data often used at the forefront of the argument. Decision making, ways of raising and spending funds were just some of the actions of the TIC engendering



opposition. However, never again was the *control* of the Tyne challenged. The TIC ‘embarked upon a major series of port improvements which enabled the Tyne to survive as a major port’ [McCord, [1979, p.77]. The Commission controlled the Tyne over the next 100 years in a much more successful manner. The Commission’s success can be seen clearly by the following comment:

One of the most far-reaching changes in human history took place between 1850 and 1914, when the volume of international trade probably increased ten-fold in this relatively short period...[aided by] the more sophisticated harbour facilities [Newcastle City Libraries, 1969, p.1].

*British port statistics:* The final issue in the battle for control of the River involving accounting data as a lobbying tool concerns Newcastle’s position in the rankings of British ports. In 1844 the Newcastle Corporation was promoting the Tyne to the Board of Trade, seeking classification as a first-class port. At that time it was second only to the Thames in terms of registered tonnage, and its revenue was nearly equal to that of Glasgow, already a first-class port:

The advantages to be derived from the port being ranked as a first-class port would be numerous, from the facilities that would be afforded to trade from the Custom House department, from being included in all public returns ordered by Parliament, and from the standing it would then hold, not only in this country, but abroad [NTCP, 1844, p.77].

Amongst other benefits, achieving a first-class ranking would make raising finance easier, which became particularly critical after the TIC took control in 1850 and embarked on a programme of capital improvements.

However, as we have seen, the port of Newcastle included the important shipping centres of North and South Shields, which by 1844 were petitioning for their independence. Down to 1848 all Custom business for the port had to be transacted at Newcastle, no matter where the vessel was loaded, notwithstanding that North and



South Shields together owned more shipping than Newcastle, and the greater part of Tyne based vessels loaded and discharged in Shields harbour. Any costs relating to the trade incurred by the Shields was paid to Newcastle and any revenue generated by trade at Shields was transacted at Newcastle and the Shields did not benefit. Thus, it was considered as a 'great hardship that [the Shields] should be compelled to pay for landing goods at Newcastle which do not come within ten miles of it' [NTCP, 1834, p.47]. The Shields people wanted to have control over their own affairs as a large proportion of the Tyne trade occurred at their ports with all benefit going to Newcastle. The relentless petitioning by the Shields people finally paid off in 1848 when the Port of Newcastle was split into two by an Act of Parliament and now became the Port of Tyne and the Port of Shields. The actions of these neighbouring towns thus thwarted any attempt of Newcastle to become a first class port, with serious consequences for the well-being of the region. Henceforth, the Tyne's trading figures would no longer be presented as one. As a result, the Tyne fell in the rankings of UK exporting and importing ports, and there was a great fear that its significance would be undervalued with adverse effects in terms of trade and its ability to gain funds.

Faced with this new problem, the Newcastle Corporation tried to regain the status the port had formerly enjoyed before the split, at least on paper in terms of the published statistics. Demonstrating an awareness of the potential of accounting to promote their cause, the Corporation used accounting data to demonstrate the relative fall off in revenue following the split which can be seen from the table below.

Thus, in 1856 it was agreed

that a select committee be appointed to inquire whether the trade and commerce of the Tyne will not be facilitated and its character enhanced by the consolidation of the two separate existing ports into Custom facilities for transacting the business of Newcastle and North



and South Shields ... He went over a variety of statistics and adduced other considerations, to show that the character of the Tyne suffered in general estimation by the division of its registered tonnage, and that its rate of progress was retarded positively as shown by the increased trade at other ports. The Tyne ought to have but one centre for the entry of its commerce, the same as the Thames, the Mersey and other large rivers [NTCP, 1856, p.475].

To this end, the Corporation made

an application to the Board of Trade to have, in addition to the present Shipping Returns of the ports of the Tyne, the aggregate amounts of the total ships and tonnage of the entire Tyne stated in their Annual Return of Shipping ... If this motion were carried, they would see a more effectual register of the tonnage of the Tyne. If they did not adopt it the registration would be separated into distinct ports, and they should look instead of being stronger, much weaker than they were. The returns at present would show that Sunderland stood, as a coal exporting port, higher than the Tyne [NTCP, 1859, p.xxix].

The application was rejected and worse was to come when there was pressure from South Shields for independence from North Shields, which was granted in 1865, resulting in a tripartite split in the trade statistics. South Shields petitioned, pointing out that when North Shields was given independence:

the principal part of the cargoes loaded in the harbour were shipped at South Shields which in 1847 shipped 1,067,628 tons of coal and coke, worth £323,018, requiring at least 4000 Customs entires, against 36,978 tons, worth £11,075 owned in North Shields [Hodgson, 1903, p.201]

It was not the number of Custom Houses that Newcastle objected to, but the division of the statistics degenerating the Tyne's overall ranking even further. New lobbying efforts were made in an attempt to regain the port's commercial status by amalgamating trading figures for statistical purposes. This time they were successful.



The following shows the gross revenue of the TIC during the time of the port splits.

Year	Gross Revenue
1851	17470
1852	23139
1853	30414
1854	41826
1855	34820
1856	36355
1857	46245
1858	51651
1859	63398
1860	66650
1861	74920
1862	86948
1863	95571
1864	106481
1865	115434
1866	121473
1867	125657
1868	124708
1869	124470
1870	137602
1871	168528
1872	159698
1873	163984

It can be seen from the figures in the table that from approximately the time of the first split in 1848 to the second split in 1865 gross revenue fluctuated, moreover, on a cumulative basis it wasn't increasing year on year at a rapid pace. After the 1865 split, gross revenue increased at a lesser rate and in-fact started to reduce. When the revenue figures of the 3 ports became one again for statistical and ranking purposes



c.1870, it can be seen that there is a greater increase in gross revenue of around £30,000 and a pattern of, in general, increases each year so much so that by 1888 gross revenue was £227,547. It could be implied that the lack of earlier growth was due to the fall in the ranking of the port and once united for the purpose of Board of Trade statistics, the position of the port of Tyne was much better and attracted further trade thus increasing the gross revenue.

Guthrie [1880, p.34] writes:

This separation of what is really one port causes considerable confusion and misapprehension as to the magnitude and importance of the trade of the Tyne, and it has been frequently proposed that there should be a union of the three ports under the name of the 'Port of Tyne'. Under such a union each of the existing ports would retain all the facilities from the transaction of business which it at present possesses; but the aggregate figures of the united port would correctly exhibit to the nations and abroad the business transacted and official status of the Tyne. In the Annual Shipping Returns of the Board of Trade the three Tyne Ports are now [c.1870] grouped to show the aggregate commerce of the River Tyne.

Again this demonstrates the efficacy of accounting data as a political tool. In the first place, the Shields people gained a strong voice by using the available accounting data to prove that they merited independence from Newcastle. So too did the Newcastle Corporation in its subsequent campaign for the combined presentation of the Tyne's statistics. Secondly, this last dispute was mainly about the presentation of information to third parties and their expected reactions, not the allocation of revenues. As such it displays an awareness of the advantages of reporting the desirable position.

### **Implications for 'emancipation' in accounting**

The viability of using accounting data as a lobbying tool for political ends is a recurrent theme of the thesis. After achieving their original goal of breaking the Newcastle Corporation's monopoly over the Tyne, the activists who were



campaigning for improved port facilities did not fade into the background, but were spurred on to greater efforts to promote their cause. Subsequent chapters will describe how they exploited the more detailed levels of disclosure and accountability imposed on the TIC as the second half of the 19<sup>th</sup> century progressed. Thus, later in the century pressure groups mobilised the more sophisticated accounts either to challenge and block proposed capital works or to push through alternative schemes. G&H [2001] observed a similar phenomenon in relation to the campaign for better conditions of employment at Bryant and May, whereby activists learnt from their initial successes the value of accounting data in disputes, and so were encouraged to deploy it with greater vigour:

The next issue of *The Labour Elector*, of 5 January 1889, published the accounts of the company for the half-year ending 31 December 1881. The profits were again contrasted with the poor working conditions [ibid, p.101].

G&H [2001, p.29] showed how in the late 19<sup>th</sup> century ‘radical political activists’ used accounting data through the medium of the press as an ‘emancipatory’ force. For example, Herbert Champion, a socialist activist, produced the ‘Common Sense’ publication [15 May 1887:11] in which ‘the first exposé on Bryant and May ... comes under the heading “Questions that Require Answers”’ [ibid, 2003, p. 74].

During a speech,

Champion again exposes the stark contrast between the high financial returns to the shareholders and the poor returns to the workers, again using accounting publicity ... It was doubtless publicity engendered by the council speech that brought the criticism to the attention of the Bryant and May board. Another socialist activist of the time was Annie Besant. She follows Champion in being concerned to use accounting disclosure to emphasise the exploitation [ibid, pp.77-80].

The pressures brought to bear on Bryant and May on behalf of the ‘Match Girls’ proved successful with the company making a number of concessions improving their working conditions, such as withdrawing the system of fines, increasing wages by a



small amount, the possible provision of a canteen and the acceptance of the formation of a match-maker's union.

The outcome of the battle for control of the Tyne could also be regarded as social progress in the sense that it achieved wider representation in the management of the River for the towns, regions and interest groups dependant on it for their prosperity. Thus, the newly formed TIC was to be made up of members from all interested regions. Accounts had been used as a communication medium, informing and ultimately aiding radical, democratic forces to challenge and change the existing situation. Therefore, the thesis adds to a growing body of critical researchers who have developed the idea that accounting can be used as an emancipatory tool in society as a counterfoil to the majority of their number who see it as a tool of oppression [see Haslam, 1991; Roberts, 1991, Tinker, 1991, Arrington and Francis, 1993, Schweiker, 1993]. As G&H [2001, pp.105-6] observed:

As a systematic communication and practice of informing, including through exposing and making visible, accounting can come to serve radical democratic forces aiming to challenge and go beyond the status quo to effect emancipatory change ... We have especially come to recognise how few studies have sought to articulate the ambiguous involvement and not necessarily dominant class belongingness of accounting in the context of social struggle. Specifically, we have noticed a lacuna as far as study into accounting's interface with the activities of radical political movements is concerned.

Critics of both the Newcastle Corporation and the TIC's management of the Tyne gained valuable ammunition from the increased disclosure of information in the accounts. However, this raises the question of the understandability of accounting information, which becomes more critical as disclosures become more elaborate, requiring accounting competencies to be able to understand them. As Chapter 2 described, the changes in accounting regulation in respect of the Tyne were not conducted in isolation, but reflected a general trend in society towards greater public



accountability. Making this information understandable was a key concern for contemporaries. Jeremy Bentham<sup>7</sup> in particular, wanted accounting methods simplifying so that ‘the public at large’, ‘ordinary people’ could understand them:

In principle, for Bentham, manifest forms of publicity – such as journalist reports or official reports of parliamentary activity can facilitate greater openness and transparency in society, thus aiding accountability. Bentham tried to correct the accounting language so that ordinary people could use it for emancipatory development... [G&H, 2003, pp.53-4] [wanting to inform] a very broad audience ... Bentham’s texts express a concern to critique accounting language and render accounting more comprehensible and clearer as well as more open to challenge by the public at large [i.e. the ‘non expert’] ... Accounting publicity and bookkeeping had to be ‘inspective or information – elicitive’ ‘natural’ [or commonly understood] were to replace ‘technical’ expressions ... Such interventions amounted for Bentham to correcting accounting in its language so that it could be grasped by the people for emancipatory development [ibid, p.32].

Bentham ‘criticised the technicality of the double entry of his day’ and wrote books on double entry bookkeeping, critiquing and simplifying the accounting method. According to G&H [2000, p.224], ‘Bentham held that an array of parties, and ultimately the public in general, would benefit from the prescribing of accountability systems’, as this would make them easier to understand. In the case of Bryant and May, it is significant that the ‘socialist agitators’, Besant and Champion, ‘were knowledgeable about accounting’ [ibid, 2004, p.391]. On the Tyne too it was the ‘educated’ ‘professional’ men such as councillors and journalists, men who were capable of interpreting the information reported, who led the challenge on the

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<sup>7</sup>English utilitarian philosopher and social reformer. Bentham’s campaign for social and political reforms in all areas, most notably the criminal law, had its theoretical basis in utilitarianism, expounded in his *Introduction to the Principles of Morals and Legislation*, a work written in 1780 but not published until 1789. Bentham at first believed that enlightened and public-spirited statesmen would overcome conservative stupidity and institute progressive reforms to promote public happiness. When disillusionment set in, he developed greater sympathy for democratic reform and an extension of the franchise. He believed that with the gradual improvement in the level of education in society, people would be more likely to decide and vote on the basis of rational calculation of what would be for their own long-term benefit, and individual rational decision-making would therefore, in aggregate, increasingly tend to promote the greater general happiness [The Penguin Dictionary of Philosophy ed. Thomas Mautner].



establishment.

In keeping with the thrust of critical accounting research, G&H are interested in the notion of emancipation through accounting not just as an historical issue, but because of the possibilities it affords for 'improving' the current state of the world:

Accounting has the potential to be mobilized for the critical and emancipatory project. It can challenge current norms, traditions, ways of 'doing things' and expose inequalities, injustices, oppression and exploitation. Through this accounting can help engender change contributing to the building of a more liberated, democratic and happier society [G&H, 1996, p.25].

Critical research into accounting has the potential to build upon and go further beyond its current state in order to mobilise a more enabling and emancipatory accounting that can play its part in shaping and reflecting a better world [ibid, 1997, pp.87-88].

Neu et al. [2001, p.758] too are interested in how one can

intervene in social struggles in a manner that takes advantage of our expertise and offers the greatest potential for transforming and improving social practices, by focusing on the functioning of accounting within public policy struggles. [Their aim is to] extend our understandings of accounting's role within social conflict and perhaps, more importantly, encourage critical accountants to reintegrate the theoretical and praxis components of accounting scholarship through interventions in the public sphere [ibid].

The ultimate aim is

the development of alternative accountings and alternative ways of seeing and usages of current accountings for global and local emancipatory struggles [G&H, 2004, p.394].

For this promise to be realised, studies such as G&H [1991, 1993, 1994a, 1994b, 1995, 1996a, 1996b, 1996c, 1997a, 1997b, 2000a, 2001, 2003, 2004], Cousins and Sikka [1993], Neu et al [2001] and others [Brackenborough, 2003; Haslam; 1991, Schweiker, 1993] need to become the norm rather than the exception.

In this scheme, history becomes useful in helping to understand these relationships and because it proves that social improvement through accounting is indeed possible:



There is also the additional challenge that we face in accounting that although great advances have been made in academic circles in pointing to the emancipatory possibilities of an enabling accounting [See Broadbent et al, 1997], there is still a paucity of work focusing upon the mobilisation of accounting of accounting information in emancipatory struggles [G&H, 2004, p.394].

The comparison and contrast of a past with a present accounting and the tracing of continuities and discontinuities in accounting's trajectory can indicate ways of aligning accounting and emancipation. Historical analysis can facilitate a deeper appreciation of both repressive and emancipatory dimensions of accounting today with an appreciation of the historical longevity of a radical discourse, one can argue that radical proposals in circulation today are now long overdue [ibid, 2003, pp.23-4].

The implication of G&H's [2004] argument is that causal relationships in history can be theorised and thereby translated to other situations. In the case of 'emancipation' through accounts, these would include the removal of repressive regimes, gaining better wage rates and working conditions or even improving the environment. One of G&H's main themes is that enhanced accounting disclosures helped facilitate social improvement in the 19<sup>th</sup> century. Therefore, it could be argued that to enable social change today, the social exchanges depicted in accounts need to be made more visible and comprehensible.

However, how much we can learn from the past and implement in today's accounting is open to debate. In the first place, there is the difficulty in interpreting evidence, which applies to all historical enquiry [Tyson and Oldroyd, 2007]. For example, Parker [1991] informs us that there are many ways in which accounts can be misleading.

It is essentially to remember, nevertheless, that accounting records and financial statements, however technically impressive, should, like all other historical records, be approached with caution. Their authenticity and reliability have to be assessed [ibid, p.2].

This danger is compounded in situations such as the dispute over the control of the Tyne where accounting information is being mobilised for a particular purpose.



Second, there is the danger of imposing present beliefs on our interpretation of history [Miller and Napier, 1993], which increases considerably when one tries to theorise it [Oldroyd, 1999], as in the case of emancipation and accounting. However, from the beginnings of the discipline, the ‘utility’ of accounting history has been judged by accounting academics in terms of its ability to provide insights into the current state of the world, and part of this entails subsuming events into generalisations, and generalisations into theory [ibid, Tyson and Oldroyd 2007]. G&H [1993, p.329] maintained that ‘history may thus provide us with fresh eyes.’ I would tend to agree with G&H in that lessons can be learnt from history and an alternative, liberating perspective can be found that can be implemented today for a better society. In order to explore the emancipatory potential of accounting further, Neu et al [2001, p.758] called for a ‘networks of allies’, to which this study makes a contribution.

As has been seen above, a key accounting issue in the management of the Tyne was to see how the revenue was raised and then put to use. With the disclosure of accounting data, opposition parties mobilised the information to enable change, first in the control of the Tyne and secondly in the way future revenue was to be spent. By using accounts, ‘emancipation’ was achieved by the neighbouring towns which defeated the old Newcastle Corporation’s monopoly and gained a new voice and stronghold in the management of their own affairs relating to the Tyne. Accounting had played a highly political role in these developments. The same is true of the next two chapters which look at the funding of the Tyne and how those in control of the finances were held accountable for their actions.



## **Chapter 4: Funding of River Improvements Post 1850**

Chapter 4 examines the financing arrangements of the Tyne Improvement Commission (TIC), and the deployment of accounting information in reducing borrowing costs and maximising revenue streams in the period following 1850. Four main areas are considered: cost of capital; government funding for the construction of a harbour of refuge; increasing the TIC's borrowing powers; and maximising revenues from harbour dues.

### **Cost of capital**

After the change in control of the River Tyne from the old Newcastle monopoly to the newly formed TIC, it became more pressing and obvious that dock and river improvement were vital for the future success of the port. These improvement works had to be funded, so where was the finance to come from? The newly formed Commission started with a large debt and very little income and consequently had almost instantly to look to borrow funds:

The funds transferred from the Corporation to the new Commissioners were of very slender amount, and burdened with a debt of £67,349, together with upwards of £20,000 for the costs of the great Parliamentary contests of 1849 and 1850. The Commissioners had also to purchase the dredger and river plant, so they may be said to have had at the outset the incubus of debt of about £100,000. The gross revenue transferred amounted to about £20,000 per annum. The fixed charges upon this, however, were so great, for expenses of conveying ballast, interest on debt, port and harbour charges, salaries, collecting dues, and such like, that not more than half could be called nett revenue – say £10,000...The working of the one imperfect dredger absorbed between £4,000 and £5,000, thus leaving only about £5,000 a year actually applicable to new works of improvement Guthrie, [1880, p.93]

As a consequence of their dire starting position, the TIC was compelled to advertise for public loans from a very early stage. The TIC was already borrowing at



4 and 5 per cent, and by advertising to the public for loans, the Commissioners hoped to be able to borrow at a lower rate of interest. When discussing one improvement proposal, that of building the Northumberland Docks,

Mr. Cowen<sup>1</sup> said, a great part of the money had already been obtained at 4 per cent., the remainder had better be open to public competition; as they might in that way obtain it at 3 or 3 ½ per cent. He therefore moved that notice be given by advertisement, for tender of loans for sums of not less than £1,000 and that the lowest rate of interest be accepted [NTCP, 1852, p.1]

However, with no financial track-record to fall-back on, the Commissioners were disappointed in their endeavours, even though the responses received to these advertisements indicated that money was plentifully available. As far as the Northumberland Docks were concerned, it was noted that

in consequence of the advertisements published by the Commissioners for loans to the extent of £10,000, offers of loans to nearly three times the amount had been received, but none at a lower rate of interest than 4 per cent [ibid, p.xxxii].

These comments infer that a more competitive rate could not be found as lenders saw the TIC as a newly formed trust with no financial reputation, and starting with a large debt, it could not attract better rates. Guthrie [1880, p.176] adds:

In the early days of the Commission ... before the old unbelief in the reality of the Tyne improvements had been dispelled, the Commissioners were obliged to pay comparatively high rates of interest for loans.

The TIC concentrated its search for private loans on the north-east in the belief that local knowledge and closeness to events would reduce the level of perceived risk, enabling investors to lend at a lower rate of interest than investors outside. However, the historical role of Tyne ships and seamen in servicing the armed forces in times of war could pose a threat to these funds. Exceptional circumstances

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<sup>1</sup>Byrne [2002, p.284] described Cowen as a 'radical progressive innovator', a key figure in the creation of the TIC.



occurred in the region due to war which resulted in trading ships being deployed for the war effort, carrying supplies and men, culminating in a reduction in trade to and from the Tyne. As the Tyne area relied on trade for a large proportion of its income, the reduction in trade meant that there was not as much money available in the region compared to other regions, and so better rates could be achieved from investors outside. In 1859, for example, it was recorded that

Mr Robinson suggested that the Finance Committee should advertise for money. The peculiar circumstances of the district [inferring war] caused money not to be so plentiful here as in many places, and by confining themselves to borrowing in this district it very likely caused them to pay higher rates for money borrowed for dock and pier purposes [NTCP, 1859, p.xxviii].

This demonstrates that the Commissioners were aware of the rates offered beyond their own region, and that to borrow locally produced better terms in the absence of exceptional circumstances. Hence,

the Clerk said the rate of money [locally] gave them a good opportunity for borrowing now. If we kept clear of war, money would be very plentiful indeed [ibid].

The following example shows that in 1852 the Tyne Commissioners were aware that a borrowing rate of 4 per cent was advantageous given their lack of track-record, and that the key to achieving better terms was to be able to show that they could pay back their loans:

The borrowed money for the mooring fund amounted to 17,000/. Of this sum 1,000/. bore 4 per cent interest, but the remainder 5 per cent. That was an unreasonable charge at the present time; but he was glad to say that the time was nearly expired for repaying 10,000/. and, therefore, there would be no difficulty in getting the charge for interest reduced. There was another sum of 5,000/., the term of which would expire in a year and a half. The person who had lent the money was willing to reduce the rate of interest to 4 per cent., provided that Commissioners would take any further sum they might require at the same rate of interest. This seemed a very advantageous offer [NTCP, 1852, p.xxxv].

Demonstrating financial viability through the information in the published



accounts played a part in providing lenders with the assurances they required, and 30 years later the Commission were able to state:

It must not be forgotten that an ample surplus revenue is the only foundation for a reduction of the rate of interest which is necessarily the first charge on the revenues of the port; and that it is in consequence of the accounts presenting for the last years an increasing surplus that the rate of interest on new loans and renewal has been reduced to 4 per cent [NTCP 1881, p.lxvi].

The increase in the surplus revenue is demonstrated in the table below for the years 1876-1880.

Year	Surplus Revenue
1876	7387
1877	11209
1878	26452
1879	35652
1880	56820

The TIC always promoted the Tyne as a sound investment by showing its increasing revenue position and growing strength through the published accounts. Thus, in 1864 it was recorded that ‘the large revenues and rapidly expanding commerce of the Tyne afford the most certain and unexceptionable security for monies advanced’ [NTCP, 1864, p.92]. By the 1870’s, with the Tyne advancing and commerce rapidly expanding, the TIC could now confidently and successfully show to lenders through the published accounts, that it was a sound investment, with adequate security. Thus, it was able to raise loans on the security of the port revenues, achieve better terms for borrowing from private lenders, and attain special privileges that were offered by the Government and other lending bodies. Again this can be demonstrated by looking at the figures in the table below relating to gross revenue receipts for the 10 year period of 1863-1872, which generally increase year by year.



Year	Gross Revenue
1863	95571
1864	106481
1865	115435
1866	121473
1867	125657
1868	124709
1869	124471
1870	137603
1871	168528
1872	159699

In 1878, for example, the following comment was made:

It must be a source of very great satisfaction to the Commissioners to find that they were borrowing now from the Bank of England on such favourable terms. They all knew that the Bank of England directors did not advance money without making due inquiries, and that they had advanced this very large sum of money at such a small rate of interest, said a great deal from the securities of the river Tyne [NTCP, 1878, p.xix].

This statement suggests that by 1878 not only was the River Tyne perceived as a sound investment, but that its books of account had withstood enquiry, both factors enabling the TIC to achieve a reduction in its contracting costs of borrowing as well as the cost of capital.

The chapter thus far has concentrated on non-governmental loans to the TIC. But central Government too was a significant lender, which will now be examined in relation to the development of the port.

### **Government funding for the construction of a harbour of refuge**

As we have seen in Chapter 2, the Government tended towards a *laissez-faire*



approach to local issues in the first half of the 19<sup>th</sup> century, with the notable exception of the 1835 Municipal Reform Act. However, the Government's attitude changed somewhat in the latter half of the century. As this study focuses on river matters, it is interesting to note that it was also about this time when the Government started to become involved in local river issues. In the late 1850s the Government initiated a significant scheme of giving grants to enable coastal ports to build harbours of refuge (herein HOR). HOR are one or more piers built at the entrance to a port to provide an area of sheltered water for shipping in times of storms. Ultimately, such facilities would also make it easier for ships to come to port, thus bringing more trade and money to the localities affected. The reason for this interest in local affairs was perhaps the level of public interest in the issue as suggested by Guthrie [1880, p.115] in the following remark: 'The question of national harbours of refuge was attracting a vast amount of public attention.'

Kenwood concurs that it was around this time of heightened public interest that Government involvement in harbour facilities accelerated:

The Government's quickening interest in harbour development may be said to have begun in 1857, a Select Committee of the House of Commons was appointed to consider the question of harbours of refuge [Kenwood, 1962, p.323].

The Select Committee recommended the construction of a number of HORs, with a Government contribution towards the cost of these undertakings coming in the form of national grants. A Royal Commission was appointed to decide the particular sites on which the new harbours were to be constructed. Newcastle saw the great benefits of a HOR, given that no such facility existed for many miles along the north-east coast, resulting in many casualties. Now with the incentive of Government funding, the TIC made a strong case for a HOR to be built on the Tyne for local and national benefit. However, other ports on the north-east coast put forward their own proposals



in opposition to the Tyne. Competition for funds was also seen nationwide as coastal towns throughout Britain vied with each other for the proposed government assistance in building a new HOR.

When putting the case of the Tyne forward, accounting data and trade statistics were used at the forefront of the TIC's argument to justify the need for a HOR on the Tyne and later to show the Commission had the ability to raise the remaining funds for the improvement works that were not covered by the grant:

Mr. Cowen then entered into some very elaborate and interesting statistics, which he said, it was necessary for them to hear, in order that they might have a proper idea of the greatness of the Tyne NTCP, [1857, p.lix].

Cowen produced detailed statistics over time and in comparison with other North Eastern ports relating to the coal trade on the Tyne, such as the 'total amount of coals shipped from the Tyne', the 'total vend of coals' from the Tyne, and the 'the number of registered ships ... [and their] tonnage'. For example, the total amount of customs' duties paid by the Tyne and Wear for the year ending 31<sup>st</sup> March, 1856, was cited at £545,433; 'while that for the southern groups [Hartlepool and Tees] was only £104,941' [ibid].

The Tyne application was successful, coming ahead of the competition from the other north-eastern ports.

The Royal Commission stated that the River Tyne, absolutely required some increased facilities of shelter and refuge accommodation ... there would be no difficulty in the Tyne Commissioners out of their own funds raising the amount specified by Government [NTCP, 1859, p.xlvi].

As Guthrie [1880, p.116] relates:

The Royal Commissioners on Harbour of Refuge, in their report to the Crown dated 3<sup>rd</sup> March 1859, recommended, amongst other grants, a distinct grant of national money in aid of the proposed Tyne works.

Indeed, the Tyne was viewed as a special case above all other rivers, and was the only



one mentioned by name in the initial report. According to Guthrie [ibid], the Royal Commission were swayed by

the very large proportion which the shipping trading to the ports will bear to those of the passing trade which will resort to it, either for life or refuge purposes.

The grant was calculated on the basis of national and local benefit of the HOR, estimated in proportions of  $\frac{1}{4}$  to  $\frac{3}{4}$ . As a result, £250,000 of the estimated total expenditure of £1m for the project was to be raised by a government grant, and the remaining £750,000 to be raised locally. Guthrie [p.117] comments that the Royal Commission deemed it 'just and right that the nation should supplement such expenditure by a free grant of £250,000 to enable £1,000,000 to be spent.' There was no surviving cost estimate data in the archives regarding this project.

The Tyne took further borrowing powers to accommodate these works and to build the harbour in expectation of receiving the proposed sum. However, the promise of assistance by the Government was soon to fade. In 1860 an Enquiry by the Board of Trade drew the general conclusion that the possible saving of life and property resulting from these harbours was too small and problematical to justify the adoption of a system of free Government grants for their construction. So, instead of giving out free grants, the new policy was to offer loans, at a value to be renegotiated, at preferential rates of interest. The Harbours and Passing Tolls Act of 1861 initiated this policy of loans, which came from the Public Works Loans Commission (herein PWLC). Loans not exceeding £100,000 were to be offered at a rate of 3%. Any loans over £100,000 were to incur higher rates of interest to be determined by the PWLC subject to a maximum rate of 5 per cent. The period of repayment of the loan was not to exceed 50 years.

Naturally, the TIC and those with a vested interest in the HOR were



disappointed and angry at the Government's U-turn. Newcastle Councillors thought they had been unjustly and harshly dealt with, and maintained that they were 'entitled to £250,000 as a free gift, and they would be fully justified from the position of the port in asking for a free gift,' [NTCP, 1868, p.ix]. They accused the Government of failing 'to fulfil their engagements' and believed that they had been 'deceived' [ibid]. The TIC had already raised and spent a vast amount of money on the piers works which had substantially improved the functioning and safety of the port. Now, as a result of this U-turn, they were not going to get any assistance in the form of a grant. Instead between 1861 and 1896 the TIC were offered loans by the PWLC of £350,000 at rates of interest  $3\frac{1}{4}$  -  $3\frac{1}{2}$  % under the 1861 Harbours and Passing Tolls Act, compared to total expenditure 'on the Tyne piers works', estimated at £800,000: 'A sum of money at least equal to the cost of the Tyne piers works – say £800,000 – should have been advanced by Government at this low rate of interest' [Guthrie, 1880, p.120]. Ultimately, to their financial detriment, the TIC had to look to private individuals, insurance and other companies at rates varying from  $4\frac{1}{2}$  to 5 %, to make up the shortfall.

It was normal practice for the TIC to borrow from the Government for improvement works. However the TIC had to show to the Government that they had the means to service the loans:

It is well known that no money would be advanced by government until means were shown to pay interest at 5 per cent., of the principal annually [NTCP, 1859, p.11],

5 per cent being the market rate at the time. The TIC used their accounting data to contest the amount of loans offered by the Government for the HOR project, first of all to justify the expenditure on improvement works in relation to the benefits accruing to shipping of providing a safe haven, and secondly to demonstrate that they



were able to repay the interest on the increased loans which they requested. Guthrie [1880, p.120] referred to

the original hope of national help held out in 1860 ... the useful work the Tyne was performing in affording shelter annually to one thousand distressed vessels ... as well at the ample nature of the security which the Tyne revenues gave of such loan with interest being redeemed.

Thus, in 1869 the Tyne Commissioners unanimously resolved that:

in the application about to be made to the PWLC for a further loan of £100,000 towards the extension of the Tyne piers, application be at the same time made for an advance of £100,000 at a low rate of interest in the Tyne Improvement Fund, to assist in the completion of the great work of improvement... a most valuable harbour of refuge ... and that the secretary be instructed to prepare the necessary memorial and statistics, with estimates of revenue and expenditure, to satisfy the Public Works Commissioners of the ample security offered for such advance [NTCP, 1869 p.xlviii].

Upon viewing the 'full statement of the Commissioners' accounts for the year 1868, showing likewise the whole financial position of the Commissioners on all the funds', the 'subject of revenue and expenditure for the current year' had been considered [NTCP, 1869, p.xxv]. As a result, the TIC found that the cost of the piers' works was greater than originally contemplated, hence the need for:

a further advance of £100,000 on the piers fund by the Public Works Loan Commissioners, conceiving that this fund has special and pressing claims for Government aid [ibid].

In the end, the TIC's attempts to obtain further government assistance proved unsuccessful. The 1869 application for a loan of £200,000 was turned down. Again in 1874, the Commissioners applied for a loan of £200,000 at the same rate of interest but again 'without avail' [Guthrie, 1880, p.120]. Finally in 1877 'another and the last of these fruitless applications was made', this time for £150,000 towards river deepening and £15,000 towards the piers works, which had to be withdrawn as the PWLC were 'so adverse to the application' [ibid, p.121]. Here we see the TIC using their accounts to base their argument and 'contest', [Francis, 1990], the Government's



decision but, in this case, failing to achieve their objectives. With the

North and South Piers completed, the Tyne was the only harbour of refuge for passing vessels, and incurred significant extra expense in so doing ...The nation, despite pleas, petitions and memorials to the Government, did not make a grant to the Port of Tyne, [Reference, 1999, p.51].

In essence, one could argue that the 'promise' of funding held out by the Government gave the localities the confidence to spend on improvement works. Whether, the Government were ever serious in their intention to provide grants, however, is open to opinion. It is possible that it was just a ploy to encourage the localities around the country to dig deep and spend on HOR for the benefit of the country. The following statement by Thomas Farrer, who was the permanent secretary to the Board of Trade, speaking at an 1883 Select Committee meeting, leaves the question begging whether the Government were genuine or not in their policy:

Q.277-8 'I may take the Tyne as an illustration: you will agree with me that the authorities of the Tyne would not have ventured upon any large scheme for deepening the harbour ... except upon the expectation of some assistance from the Government which was promised at that time? – I should be sorry to say that, for I should be sorry to limit the energy of the men of the Tyne ... Happily they were tempted on a very large expenditure which has turned out both physically and financially a great success.'

If it was a ploy, then it worked in the respect that it encouraged the TIC to raise an enormous amount of funds for the HOR work. However, it left the localities feeling cheated. According to Guthrie, [1880, p.118]:

the Tyne is the only harbour in the kingdom which has complied with the conditions on which such aid was to be given, in fact, much more than doubly complied therewith.

It would be interesting to see whether the other harbour commissions that were chosen to construct a HOR on their respective coastlines were dealt the same hand as the TIC. At Hartlepool, for instance, the works were never completed. It was



originally recommended that on the condition of the locality providing £500,000, the nation would provide £500,000. However with the withdrawal of government assistance, the HOR was only partially built due to lack of finance: ‘The main problem in preventing the building of the Harbour of Refuge was money’<sup>2</sup> Similarly at Fife a grant of £800,000 was proposed, but no HOR was constructed owing to lack of funds following the government U-turn [Guthrie, p.117]. At Dover, ‘extension work [to the piers] continued until 1875 when the Admiralty, put off by the cost, lost interest in the harbour of refuge.’<sup>3</sup> Thus, the policy of reneging on free grants was universal, but it would be interesting to see how the Government used their discretion when determining the levels of loans granted and interest charged to other harbour commissions.

Kenwood [1985, p.329] found that from the 1880’s onwards public loans made by the Government ‘played an insignificant role on the financing of harbour construction’. This study concurs in that the majority of the PWLC loans occurred in the period 1861-1880, which relates to the period from the passing of the Harbour and Tolls Act [1861] to the time the works were about completed. A government return relating to harbour authorities published in 1883, revealed that only £350,000 of the total £3.3m borrowed on the Tyne in 1882 was advanced by the PWLC, the remainder coming from private investors.

### **Increasing the TIC’s borrowing powers**

The TIC's borrowing powers were specified by Act of Parliament and new and subsequent Acts changed the level of borrowing powers available to them. The following is an example of a memo produced by the TIC proposing new and

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<sup>2</sup> <http://portcities.hartlepool.gov.uk>

<sup>3</sup> [http://www.dover-kent.co.uk/transport/harbour\\_history.htm](http://www.dover-kent.co.uk/transport/harbour_history.htm)



increased borrowing powers to enable it to carry out the improvement works [TIC Memo, 1885, pp.1-2]. It clearly illustrates the level of detail required and the vital importance of accounting in calculating what was required to be borrowed to achieve the aims of their capital projects.

In 1885, it had been 8 years since the last application was made for increased borrowing powers. In calculating what was necessary to be borrowed to carry out their improvement works, growth in future income was forecast using past years income figures from the published accounts, combined with engineers' costings of the improvement expenditure. The last seven years figures were used to project the revenue surplus for the next seven years, with the last three years being taken as representative of the sustainable level of growth:

The seven complete years up to the end of 1884, therefore, afford a fair basis for estimating the probable progressive growth in the income of the Commission during the next few years. The first half, however, of this septennial period exhibits a much greater increase than the second half, which may be taken as representing more nearly the rate of improvement which may be expected for some time to come, and in calculating future receipts it will be safer to do on the basis of the figures shown in the printed accounts for the last three years – 1882, 1883 and 1884.

On the costing side, it was the engineer's estimates of the cost of the improvement works that were used by the TIC's accountant to base the proposal for increased borrowing powers:

To complete the whole of the present authorised works, the Engineer's last estimate shewed that a sum of £708,745 would be required from the 1 <sup>st</sup> January, 1884. Of this sum £161,803 was expended last year, leaving £546,942 to be spent from the 1 <sup>st</sup> January, 1885, viz:-	
On Tyne Improvement Fund	£369,407
On River Moorings Fund	£ 7,699
On Tyne Piers Fund	£128,835
On Northumberland Dock Fund	£ 41,001
	£546,942

Thus, according to the engineer's estimates another £546,942 would be required to



complete the works.

The memo continued:

The unexercised Borrowing Powers at the beginning of the present year were:-

On Tyne Improvement Fund	£27,897 0 5
On River Moorings Fund	“
On Tyne Piers Fund	£23,465 0 0
On Northumberland Dock Fund	“
	£51,362 0 5

Assuming that the works will be finished by the end of 1891, after which the Commissioners will have to make provision for redeeming the Mortgage Debt, an average annual expenditure of £78,135 during the next seven years will be necessary. The amount ordered to be spent during the present year [1885] is £90,450. On this assumption and on the basis of an addition to the present borrowing powers of £300,000, and an annual increase in the Revenue receipts calculated on the last three preceding year's figures, it is estimated that the Revenue Surplus, as from the 1<sup>st</sup> January, 1885, to the end of 1891, available for capital purposes, will be..

£253,070

Less: first year's appropriation out of revenue in 1891

To provide for redemption of a Mortgage debt of £4,300,000  
£27,950

Net available Surplus £225,120

Or an average of £32,160 per annum.

Deducting this sum of £225,120, and the £51,362 unexercised borrowing powers from the balance of the Engineer's estimates, there will remain £270,460 to be met by new borrowing powers.

It was estimated that it would take another 7 years to complete the works. It was so calculated that £546,942/7 years would mean a cost of £78,135 on average to be raised each year. However, £90,450 had been authorised to be spent in the present year of the application, indicating that the expenditure would not accrue evenly, and emphasising the need for an increase in total borrowing powers at the outset to prevent funding deficits as the projects progressed. Based on the historical level of growth achieved in revenues, the TIC forecast a net available surplus of £225,120 for improvements after taking into account any appropriations such as the mortgage debt of £27,950. Spread over the 7 years of works, the average £32,160 surplus revenue was demonstrably insufficient compared to the average annual cost of £78,135. In



summary, the estimates showed that funds of £546,942 were required compared to surplus revenue of only £225,120. When the unexhausted borrowing powers (those not used up from previous years borrowings) of £51,382 were taken into account, the calculation demonstrated that an extra £270,460 of loans needed to be raised. On this basis, an application for increased borrowing powers of £300,000 was made by the TIC to the PWLC.

### **Maximising revenues from harbour dues**

River dues were an important source of finance, but the way in which they were calculated on the Tyne was very archaic and confusing for the trader. It was argued that the dues system inherited by the TIC acted as a deterrent to traders and needed reform and simplification if further trade was to be attracted to the River. In 1852 the North East Chamber of Commerce reported that it was:

astonished at the amount of dues levied on the shipping in Newcastle ... there were no less than 28 different charges on vessels in and out ... it is of the first importance that the present system of raising funds for public purposes in connection with the trade of the Tyne by exacting a multitude of different dues – a system which operates unequally and injuriously upon different commercial interests, should be immediately put an end to ... all passing tolls should be abolished ... In substitution of the dues at present levied, a moderate tonnage on shipping be resorted to ... [The accounts showed that there would be] enough revenue to justify the changes [NTCP, 1852, pp.1-3].

It was estimated that ‘the proposed alteration would bring in about £1,600 a year more to the funds of the Commission’ [NTCP, 1852, p.lxix]. As Hodgson [1901, p.342] relates:

The existing river dues were not only burdensome to the shipowners, but very unproductive to the Commission, since the cost of collection was out of all proportion to the revenue raised.

In support of these proposals, an article appeared in the *Gateshead Observer* [1853] stating that:



the plan suggested is so pre-eminently simple, intelligible and practicable, so well calculated to render the district attractive to the trader, and thereby enable it to maintain its position in the great competition to which it is now exposed that we do most sincerely hope that no selfish views, no motives of jealousy no infatuation adherence to antiquated yet more than questionable customs, and exactions and exemptions will be allowed to interfere with the immediate adoption of so wise and excellent an improvement in the fiscal system of the Tyne.

However, the next quote indicates that by 1856 these suggestions had not been implemented, perhaps due to the much feared 'selfish views, jealousies, and adherence to antiquated customs' hinted at above:

That it is highly expedient that an effort should be made to effect a more satisfactory arrangement of the taxation of the port. They had no fewer than twenty-five different sources of taxation from the articles that came into the port which should be better if had a more simple system [NTCP, 1856, p.xix].

The reason for this reluctance to change is not clear from evidence available. Some Newcastle Corporation members were freemen and therefore benefited either from being exempt from paying the dues or being the recipients themselves, such as some of the ballast dues when ballast was deposited on their land.

The issue was looked at again and a much greater effort was made to change what was seen as a factor hindering the increase in trade to the port. By 1860 Ure, the new TIC's engineer, proposed a highly influential grand scheme of improvement for the Tyne which received full confidence and support from those involved in trading on the Tyne. The grand scheme required funding and the best mode of providing funds was, as Guthrie [1880, p.133] states: 'taxation on shipping and goods using the port.'

After conferring with shipowners, merchants, coalowners, and others, hearty and zealous support followed for the proposed reform. With a few doubters and cavilers who prophesied evil, and who characterised the finance scheme of the Commissioners as 'the proposed waste of money on Tyne river.' The scheme of taxation adopted was made as moderate as possible consisting of ... [main points] the abolition of certain old dues called 'ship and boat dues', 'groundage and plankage



dues', and 'ballast office dues'; in its place to enable money to be raised, the levying of a tonnage rate on all vessels entering or leaving the port with cargo ... no additional due whatever was put upon coal, the staple of the port [ibid, pp.133-4].

The principal features of the financial plan were adopted in 1861. The pressing need for an increase in revenue to be able to carry out the Ure's plans lent urgency to reform of the dues calculation and collection system. Accounts had played their part in demonstrating the costs of collecting the many dues and the savings that could be made if they were rationalised. Hence, it was argued that the proposed changes to the dues system would not be detrimental to the finances of the TIC. On the contrary, with the complexity of the system reformed, it was thought that trade would increase to the area thus increasing revenues of the port. Here is an example of changes being made to the accounts, improving the accounting system and disclosure for the benefit of the users of the Tyne; it could be argued in an emancipatory way. In particular, the TIC gained extra income through the increased trade and traders gained a clearer system of dues and a better improved state of the River.

*5/8<sup>th</sup> Dues:* One of the most significant issues regarding dues in the 19<sup>th</sup> century on the Tyne was the battle for the ownership of the 5/8ths coal dues. As a result of the Tyne Improvement Act 1850, the new TIC were given only 3/8ths of the coal dues and 5/8ths remained with the Newcastle Corporation to compensate them for the loss of revenues they had sustained through losing control of the River. The arrangement was the result of a compromise between the Newcastle and Shields Bills in 1850. The large proportion of the river dues being received by the Corporation, and the small amount received by the river fund, was the cause of constant discontent and recrimination.

By looking at the accounts of the TIC, it was obvious that the funds derived



from the River were inadequate for the execution of any comprehensive scheme of river improvement. As has been seen in the previous chapter, the amounts received from the River were barely enough to cover the administration costs let alone any improvement works, while the Corporation received 5/8ths of the dues without any river obligations and spent a large proportion of it on the town. According to Guthrie, [1880, p.94]:

the five eighths of the coal dues retained by the Corporation under the Act, entirely discharged from all river liability, amounted to nearly £10,000 per annum; so that on the separation of the town and river, each got about one half of the whole dues earned on the river.

The Corporation were getting the benefit of a vastly extended trade without risk or exertion to an extent that had not been contemplated at the time of the passing of the Act of 1850. For example, by 1859, the 5/8ths of the coal dues retained by the Corporation amounted to around £15,000 p.a. [ibid, p.95], an amount much larger than the position in 1850 when the 3:5 split had been made and the Corporation received £10,000. This amount was rising yearly as trade increased. The TIC saw it as a loss to them and devised ways using their accounting data to 'contest' [Francis, 1990], the situation and gain possession of the 5/8ths:

The continuance of this large amount of river dues to the Corporation, rapidly increasing in consequence of the river improvements, was a fruitful source of irritation and of much entanglement to the Commissioners in their financial operations [Ibid, p.163].

The first proposal was put forward in 1857 by the TIC to acquire the Corporation's interest at 10 years' purchase:

The report of the River Dues Committee<sup>4</sup> proposed that ten years' purchase on the amount of last year's collection be offered by this Commission to the Corporation of Newcastle for the transfer of their five-eighths of the coal dues [NTCP, 1857, p.xvi].

Valuing income streams at so many years' purchase was the traditional method of

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<sup>4</sup>River Committee first formed by the 1835 reform.



valuing landholdings, dating back to Tudor times. Twenty years' purchase was the conventional multiplier, which equated to a rate of return of 5 per cent per annum received in perpetuity [Scorgie, 1996]. The offer of 10 years' purchase was extremely parsimonious, therefore, especially considering coal dues were rising. However, the TIC justified the offer on two fronts, firstly by stating that the dues had increased because of the improvement works done by the TIC, and therefore 10% was 'fair and adequate' [NTCP, 1869, p.xlv]. The report of the TIC used the accounts to demonstrate the 'yearly increasing value of the dues', and that 'this increase is mainly attributable to valuable improvements effected by the Commissioners' [ibid]. Secondly, it was argued that when 'matters' [it is not clear from the evidence what?] had reached stalemate in the past, and had been passed over to the government for resolution, 'they knew that whenever such cases had been settled – when the Government settles such matters – the condition had been ten years' purchase' [NTCP, 1869, p.xlvi].

The Board of Trade reported on the proposed Bill and agreed in principle but thought that:

it would be most imprudent to leave the settlement of the consideration money to the Corporation and the Commissioners, the influence of the Corporation being so very great in the Commission NTCP, [1858, p.164].

The Bill was later withdrawn because agreement could not be reached and fresh discussions ensued, with the idea that the matter be settled by each party appointing an arbitrator to act on their behalf to mediate and reach an agreement over the amount to be paid for the transfer of the dues. This method of arbitration was agreed, but it was never really going to work as neither party appeared willing to compromise:

They would be sure that the Commissioners offered 10 years' purchase; the committee asked for 22 ½; so that there was a very wide difference [NTCP, 1858, p.216-7]



that would always remain. The issue resurfaced again in 1861, after receiving Ure's report on the best mode of improving the Tyne, as a way of raising the much needed revenue. It was also significant that the Liverpool River Commission had recently obtained their remaining share of river dues from Liverpool Corporation:

A case as nearly as possible analogous was disposed of recently in Liverpool, and were the same basis of compensation adopted here, a question which has long created a degree of dissatisfaction would be disposed of for ever [NTCP, 1861, p.136].

The following example shows the significance of published accounting data in the negotiations over the value of the coal dues; or as Guthrie [1880, p.136] puts it, in determining 'a reasonable equivalent' for their total ownership. The following modes of settlement were proposed: 'First – the acceptance or otherwise by the Corporation of ten years purchase of the annual produce of the five eights dues,' [NTCP, 1869, p.90]. The Commissioners had offered to purchase this interest of the Corporation at a sum equivalent to ten years income, taken on the amount received at the Custom House according to the last published accounts of the Corporation. This was not accepted, and was considered by the Newcastle Corporation as 'so obviously beneath the proper value' [ibid, p.169]. The Corporation felt that the TIC had already got 3/8ths of the dues from them and that any further increase would have to be on fair terms.

Secondly – the alternative proposal of a friendly application to Parliament to settle the amount of compensation. Thirdly – the suggestion as to the Commissioners dealing alone in Parliament with their 3/8<sup>th</sup> dues, by the substitution thereof a tonnage due on the export of coal. Fourthly – the extinguishments of the Corporation's interest, by fixing a limited number of years for its continuance. Fifthly – by a reference to the Board of Trade, or the Lords of the Treasury, empowering the Board selected to decide the whole question at issue. Failing to approve of any of these suggested modes of settlement the Corporation will submit to the Commissioners a statement of their views as to the best way of settling this vexed and long-pending question as between town and river [Ibid, p.90].



The aim of these proposals was that all revenue generated by the River would be expended on the River, and by suggesting many ways of obtaining the 5/8ths it was hoped that agreement could be reached.

The Corporation refused all of the proposals, and in response the TIC stated that unless an agreement could be reached they would apply to Parliament in the next session for powers to transfer the dues. Parliamentary battles had proved costly in the past. For example, the 1850 battle over the ownership of the Tyne as a consequence left the TIC facing a huge debt upon its formation, and the Corporation spending a large amount. With this in mind, the Newcastle Corporation decided to come to an arrangement with the TIC: 'By their arrangement, which they had just heard read, the town had been saved, probably, an immense sum in Parliamentary expenses' [NTCP, 1870, p.245].

Thus, an agreement was finally reached resulting in the Tyne Improvement Act of 1870, whereby the 5/8ths were given to the TIC by Newcastle Corporation for a consideration of £130,000 [Guthrie, 1880, p.164]. It is not clear from the evidence exactly how the final figure was arrived at, but it seems to have been a compromise based on 12 years purchase of the historical coal-dues collected. Some councillors, however, remained dissatisfied with the arrangement:

He thought the Corporation interest was by no means compensated ... it seemed to him this was only about twelve years' purchase which was a very lamentable falling off ... for the Corporation it was a very bad bargain [NTCP, 1870, p.246].

£125,000 of the total of £130,000 was to be paid in equal instalments of £25,000 per year over five years and took into account interest at 4 ½ per cent:

The Corporation of Newcastle assent to the passing of the Tyne Improvement Bill now before Parliament for the transfer to them of the five-eighths of the coal dues...[the consideration] to be payable to the Corporation with interest at 4 ½ per cent payable half-yearly from



the 1<sup>st</sup> of January 1871 by five annual payments of £25,000 each, the first payment to be made on the 1<sup>st</sup> of January 1872, and the next on the 1<sup>st</sup> of January 1873, 1874, 1875 and 1876 [and £5,000 to be paid initially] [NTCP, 1870, pp.244-5].

The remaining £5,000 related to the one year's remaining compensation owing by the Government in relation to differential dues. This had to be paid immediately to Newcastle Corporation as it related to the year of handing over the 5/8ths.

It is necessary to explain here a little about the background to the 'differential dues', as they were known, which came into existence in 1825, at a time when the Corporation levied a 2d per chaldron due on coal exported in British ships and 1s 4d on coal exported in foreign ships. Around this time reciprocity treaties were being entered into between the Government and other countries, with the result that the dues on coal exported in foreign ships were now to be the same as dues on British ships. 'Not to deprive the localities', the Government agreed to pay them back the difference from the national consolidated fund [ibid, p.165]. This was called the 'differential due'. In 1846 the Corporation reduced the foreign rate to 8d per chaldron and now the differential due from the Government was only 6d per chaldron. This continued until 1861 when the Harbours and Passing Tolls Act abolished all differential dues. However, in order that the localities did not lose out the Government 'provided for the payment of a ten years' compensation' [ibid, p.166]. The amount was fixed at £8,185 15s 4d on the Tyne per year, which expired in 1871. It follows that when the Tyne Bill was passed in 1870, one year of compensation remained, which at 5/8ths of £8,000 amounted to £5,000.

*Suspension of works:* The development of the River Tyne as a port comprised four principal civil engineering components: river channel improvement [dredging] paid for out of the Tyne Improvement Fund (TIF); the provision of dock accommodation,



primarily the Northumberland Dock, paid for out of the Northumberland Dock Fund; the building of protective piers, paid for out of the Piers Fund (PF); and moorings work paid out of the Moorings Fund (MF). The need to earmark dues for each of these separate funds was seen by the TIC as an impediment to its activities, and became an issue in the 1870s when the TIC applied to Parliament to increase taxation. For the first time in its history the TIC felt obliged to suspend works on the grounds that there was not enough money available to carry out the improvements. Whether this was a political ploy to exert pressure on the opposition is open to debate, but accounting was utilised in the dispute to demonstrate the necessity of taking this course of action. This is a very clear example where the accounts of the TIC were used to mediate and contest [Francis, 1990]. The TIC used their accounts to justify their actions, firstly for the application to increase borrowing powers and secondly to suspend all works on the Tyne. Those who opposed the TIC's plans used the published accounts to contest the action taken by the TIC.

The episode started at a time 'peculiarly favourable for carrying on public works, labour and material being alike cheap and abundant' [Guthrie, 1880, p.200]. The TIC wanted further funds to take advantage of the situation and so applied to Parliament for increased borrowing powers and for powers to enable them to increase taxation. In 1875 a 'Special Committee on River Revenues' was appointed by the Tyne Commissioners and ultimately their role was to report on the subject of applying to Parliament for increased borrowing powers:

The Commissioners, convinced of the necessity for additional dock accommodation [Coble Dene Dock] of a nature suitable to the improved state of things, and believing such accommodation the only means of attracting valuable trade to the port, resolved to apply to Parliament for the necessary powers [Guthrie, 1880, p.174].

Furthermore, the Special Committee proposed to simplify the funding arrangements



by amalgamating and consolidating the TIF, MF and PF into one general fund to be called the Tyne River Fund. Guthrie [1880, p.193] states that:

as revenues for those three funds were all derived from taxation levied upon the whole commerce of the river, it was thought a simpler and cheaper plan to raise such revenues in one collection instead of three collections. The Commissioners would then have had to administer two simple trusts, a river trust and a dock trust, and the keeping of accounts would have been much simplified and improved.

The additional taxation proposed to be raised by the Bill was to be obtained by consolidating the taxation then raised for these three funds into one schedule, and ‘adding to such taxation to the extent that all vessels entering or leaving the port with cargo should pay dues each voyage’ [ibid, p.194]. Up until then the piers and moorings dues had only been charged the once, not for both entering and leaving. It was also proposed to increase coal dues from 1d to 1 1/2d. It was argued that the proposed increase in taxation was only ‘moderate and equitable and would not cause any diversion of trade from the port’ [Ibid, p.215]. On the contrary, improvement to the River would mean better facilities and an increase in trade attracted to the port.

Applying for such powers was not unusual as the TIC had applied for variations in its taxation and borrowing powers before. However, this time there was vehement opposition who argued that the TIC already had enough revenue for its improvement works but the funds had been mismanaged. They also argued that the Coble Dene Dock (CDD) was not needed and therefore no extra borrowing was required. Even though the majority of dues payers were in favour of the scheme, as their trading activities depended on the improvement of the River, the voice of the opposition was strong:

comprising the names of many very influential firms of coalowners, merchants, manufacturers, and others, large contributors to the revenue of the Commissioners [ibid, pp.195-6].

The opposition, by referring to the TIC’s revenue position derived from the



published accounts, contested [Francis, 1990] the proposal and accused the TIC of extravagance and mismanagement,. They contended 'that by economy and judicious management the existing revenues were adequate for purely river purposes,' [ibid]. The CDD project should therefore be abandoned without incurring what were seen as 'further future losses' [ibid, p.192]. The consolidation of the various improvement funds was another major issue opposed to on the grounds that it might lead to the dues being diverted for purposes other than for which they had originally been intended.

In response to the charge of wastefulness, the TIC used accounting and engineering reports to justify their actions. The 'Commissioners produced scientific and practical evidence as to the absolute economy with which works had been executed' [ibid, p.198]. In addition to wanting additional funds to assist the progress of existing improvement works, it was argued by the TIC that further loans were required to fund the new works proposed by Ure in 1860 because the cost of labour and material had increased since the original estimates. Moreover, further works had been executed than originally proposed and additional future works were planned. Also, the surplus revenue available on which to raise the capital required for new works was being eroded by the rapidly increasing proportion of steam vessels using the port compared to sailing vessels. For example, in 1862 steam ships made up 12% of total tonnage using the port and sailing ships 88%. In 1875, steamships started to dominate the tonnage statistics, now with steam ships making up 60% of total tonnage using the port and sailing ships 40%. With taxation based on the registered tonnage of a ship, and steam ships able to carry more cargo than sail, fewer vessels were required to carry the same tonnage and therefore to be taxed:

The proportion of cargo carried by a steamship compared to her registered tonnage was much greater than that carried by a sailing



vessel. Not only so, but the disproportion of cargo to the registered tonnage of steam vessels seemed likewise to be constantly increasing. It followed therefore that the Commissioner's revenues, derived from vessels carrying coals and other goods from the port, did not increase in the same ratio with the quantity of such goods taken away from the port as it did before the advent of steam, and as had been estimated in the calculations on which taxation was founded [ibid, p.190].

To compound the difficulties, steam ships did not require ballast resulting in a loss of ballast tax, whereas for sailing ships that did carry ballast, the cost to the TIC of disposing of it had increased.

The voice of the opposition proved influential and ultimately led to a Parliamentary review. The Parliamentary Committee found that there was already 'sufficient' dock accommodation. The current depression in trade meant that there was enough dock room to meet the needs of the trade. Therefore an increase in dues was not justified. The Bill had to be withdrawn resulting in the suspension of works. For the first time since the TIC took control of the management of the Tyne, works were stopped. It was argued that this was not a political decision, but a financial one, with the accounts used to show the deficiency. Ultimately, by looking at the condition of their finances and state of their improvement works, the TIC contested [Francis, 1990] and maintained that they had no choice but to suspend the works.

It is shown below that the TIC used their accounts to argue that by suspending works they were 'protecting the public creditor' [NTCP, 1876, p.411]. The TIC used the information in their accounts to argue that they needed to increase annual taxes by £33,000 in order to support the additional borrowings of £828,000 that were required to complete their construction projects. This sparked a mass of debate. Information from the accounts was deployed from the outset as a basis for understanding the situation the TIC were in:

if the Council will give me their attention for two minutes to some large figures, I will make the whole matter perfectly clear ... Up to the



end of 1875 the gross revenue was £178,622 9s 3d. The expenditure against that revenue was £171, 868 8s 4d leaving a surplus of £6754 ... the maintenance of the Commission – that is to say, all the standing expenses and various matters which they cannot of course get rid of amounts annually to £48,839. The interest on the debt is £123,000. The amount of the mortgage debt on the 31st December 1875 was £2,871,429, and we now have the means of borrowing still further £828,000. That is the surplus power of the Commissioners ...

they proposed by the bill of last session to take powers to tax shipping to the extent of £14,000 per annum, [coal], which was to extend over two periods, viz £7,000 at present and £7,000 at the end of five years, and they proposed to levy £5,000 a year on merchandise other than coal. And therefore the Council will see that in addition to the £6,000 they proposed to take powers to realise something like £33,000 annually, and with that go to the market to borrow capital in order to complete the works, or in other words, to exercise borrowing powers to the extent of £828,000 [ibid, pp.408-411].

It follows that by using the accounting data, the TIC argued that they could not carry on with the works without the powers that the Bill would have given them:

When the bill failed and Parliament declined to give the powers that I have specified, to obtain this £33,000, how could the works go on? It became necessary then to look carefully into the financial position, and to take steps to secure the creditors, because after all, those parties who, in their confidence in this town and neighbourhood and in that Commission, have lent £2,871,000 were entitled to the first consideration, and it was necessary to take especial care that all interest accruing upon that sum should be paid to the very letter ...

There is every desire on the part of that Commission to go on with the works, but prudence, honour, and integrity, required that the greatest care should be shown in protecting the public creditor.

By taking this position, the TIC were running the risk that the works already completed as well as those underway could be damaged without further improvement work and maintenance. For example, silting, shoaling-up and, breakage to construction could result. 'The future state of the Tyne was wrapt in obscurity, and nothing was clear' [ibid, p.201]. It was felt that 'the trade and the commerce of this district, are likely to be injuriously affected by the action which the Commissioners had taken [NTCP, 1876, pp.406-9]. Newcastle Corporation wanted explanations why



the works had been suspended and suggested that the TIC should be able to borrow publicly to resolve the shortage of funds and enable them to carry on with the works.

Alternative methods of raising funds were proposed. It was said that:

the whole thing had been decided in a fit of the sulks, simply induced by disappointment caused by the loss of the bill ... Money had been so cheaply lately so why couldn't the Commissioners borrow to sort out this temporary difficulty?

... This raised another question, was the present system of borrowing money a good one, or could it be improved? If he might be allowed to throw out a suggestion, he would ask if the debt of the Commissioners could not be transformed into stock and issued upon the market at a certain rate of interest? He believed that such a course would be very acceptable to money-lenders, especially if the amount of the stock was regulated by the income of the Commissioners – there being enough income to meet the amount of stock issued, and to carry on the improvement of the river. Part of the stock might be made redeemable at a certain number of years, and the Commissioners might get rid of the difficulty and annoyance of having every now and then to meet the calls of parties wishing to withdraw their loans. They would then simply have to go to a sharebroker and say 'Sell me so much of my River Commissioners' stock,' [NTCP, 1876, pp.407-8] <sup>5</sup>

However, the TIC did not want the suspension of the works to be long-term and so proposed a revised Bill. Suspending works on the River had achieved its aim of weakening of the opposition:

The suspending of work in the upper reaches of the Tyne had caused sand to silt up in various parts of the river below the bridge, and this created such a strong feeling in the Commissioners' favour that they were successful in getting their bill through Parliament in 1877 [NTCP, 1885, p.412].

This second Bill was framed by the Parliamentary Committee of the TIC, who

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<sup>5</sup>Over 20 years later, power was taken to raise capital in the form of debenture stock, as an alternative to the existing mode of borrowing principal sums for short terms of years: 'Last year they got Parliamentary powers to issue Tyne Improvement Redeemable Stock to the extent of half-a million repayable as between July 1918, and July 1952 ... they had now got their financial arrangements into such a condition that they were able to borrow money upon very favourable terms indeed. This was no doubt due, to a very large extent, to the fact of their having floated the half million of capital which had created strong confidence in the money market and given them a first class position with this who had money to lend' [NTCP, 1898, p.x].



‘endeavoured to make it as acceptable as a taxation Bill could be made, and thus if possible obviate objections’ [Guthrie, 1880, p.202]. In the newly proposed Bill, ‘the amalgamation of the three funds was left out, as this proposal had led to much misconception’ [ibid, p.202]. Instead, the TIC argued that there should be moderate assistance from the Tyne Improvement Fund (TIF) to the Northumberland Dock Fund (NDF) as docks indirectly helped river works, and without the dock improvement, the TIF would have had to expend much more:

It does appear, then, reasonable and a proper basis of arrangement that the Tyne Improvement Fund should for these reasons alone, without taking into account that the docks are feeders to the river funds ...be liable to contribute to the Dock Fund a moderate and defined assistance or contribution; and on such contribution being made and applied in the aid of the construction of the Coble Dene Dock, the completion of the dock we proposed should be made to depend on the surplus revenue of the Northumberland Dock. Thus the two funds would be placed on a strictly defined footing, and ample security given against any undue imperilment, wither of dock or river funds, [ibid, pp.206].

The increased taxation was therefore principally confined to the two funds which absolutely required it, the TIF and the Moorings Fund. This arrangement would enable completion of the CDD project:

Provided that the dock can be made out of dock resources, aided as now proposed, we should hope that all opposition to its completion should cease. The Bill which we now submit for your adoption enables the Commissioner to contribute from the River Fund to the Dock Fund either an annual sum from the revenue of the one to the other, or a capital sum in discharge at once of all claims of the dock to river assistance. The main object of the present Bill is the same as that of the last year, to provide means for completion of the river works and to borrow at the lowest rate of interest [Report of Parliamentary Committee 13<sup>th</sup> Dec 1876].

Thus,

the Commissioners by the evidence they gave in support of the Act, showed clearly and distinctly that the extension of the borrowing powers and the increase of rates were required for river purposes only [NTCP 1885, p.413].



Again the revised Bill attracted opposition, mainly from the same parties who had opposed the original one. The amended Bill went before a Parliamentary Committee and this time found acceptance with one revision. The proposed 1/2d increase in coal dues per ton was restricted to 1/4d. The consolidation of the funds was preserved intact, the whole of the new taxation being applicable, together with all the other revenues of the Commission, to the purposes of the Tyne Improvement Act of 1872.<sup>6</sup> Although the original proposal made in the first unsuccessful 1876 Bill that the various funds be amalgamated into one general fund called the Tyne River Fund had been left out, all of the funds were now 'liable for monies borrowed for their several purposes' [Guthrie, 1880, p.215]. By the passing of the Tyne Improvement Act, 1877, the borrowing powers of the Tyne Consolidated Fund increased by £300,000, of which £200,000 was for the River (TIF) and £100,000 for the Piers works, increasing the total borrowings to around £4m.

As stated earlier in the thesis, the North Eastern Railway Company was used as a comparative on more than one occasion when putting forward ideas on how to deal with accounting issues, rather than other local authorities; and the financing arrangements of the TIC is an example. The bones of contention were the redemption of loans and the funding of improvement works through surplus revenue rather than increased borrowing powers. The TIC proposed to get powers to extend the period for the commencement of the repayment of their capital and to consolidate their funds. That latter would have enabled them to complete their different undertakings by means of their surplus revenue, instead of increasing their borrowing powers:

There were gentlemen who would say of the Tyne Commissioners

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<sup>6</sup> 'In consequence of the numerous Tyne Improvement Acts and the successive additions rendered necessary from time to time to the Commissioners borrowing powers, these powers became so complex that simplification and consolidation became absolutely necessary,' [Guthrie, 1880, p.177]. Suggestions were made to Parliament for the consolidation of powers which became law as the Tyne Improvement Act of 1872.



‘Why should they be called upon to redeem their debt at all, when the North Eastern Railway Company and other public companies, which do similar work have not to redeem their capital? The Capital of the NERC remains in perpetuity, the Company paying nothing but the interest from time to time, and why not apply the same principle to the Tyne Commissioners capital?’

Lord Redesdale, House of Lords member, had said that to do so would be contrary to public policy, suggesting that different accounting rules applied to public and private bodies. Hence, even though the TIC demonstrated by their accounts a continuing surplus revenue of around £40,000 p.a. From c.1880, Parliament refused their request arguing as Redesdale did earlier.

### **Concluding remarks**

In this chapter it has been shown that the funding of the River Tyne was vital to its existence, as without money, no improvements could be made and the River would not be useful. The TIC did not have the best start with a large amount of inherited debt impeding their progress. Loans were sought from private as well as public sources, always with the prudent aim of getting the best loans available at the lowest rates of interest. With no financial reputation and history, at first the TIC found it hard to obtain competitive rates; and it was only when they were able to demonstrate through their accounts a surplus revenue and ability to pay back capital and interest that they were successful.

The Government did not pay much attention to local river improvement matters throughout the 19<sup>th</sup> century, the only exception being in 1857 when they promised free grants to successful HOR applicants. However, the Government soon retreated on their promise and left many river commissions high and dry and unable to complete the works. It could be inferred that when the Government offered funds and then later loans at discounted rates for harbour works, it gave the TIC an



incentive to carry out the works. However, after the withdrawal of the promise of assistance, it left the TIC not only feeling deceived but also with a larger debt than had originally been anticipated.

Another important source of revenue was the dues that the ports raised. Much of the money expended on port improvement either came directly from the river dues harvested from the ports growing traffic or was borrowed on the strength of the growing revenue. Here was the greatest example of the truism that the continued growth of coastwise shipping was dependent on massive investment in major harbour improvements on the part of the river commissions, railway companies, the Government and private investors. Accounting data was vital in simplifying the way in which dues were collected and accounted for, and in the long battle to obtain the 5/8ths dues from the Newcastle Corporation. The TIC's revenue position in the long-run had the potential to show a surplus. However, in the short-run, without enough funding, often resulting from too many outgoings, works and salaries – repayments on current loans/borrowings being the most significant drain on resources – and with the failure to obtain further borrowing powers and raise taxation, all current operations were suspended with the main aim of 'protecting the public creditor', as quantified through the accounts. In short, this was a turbulent period in the history of the development of the Tyne, where accusations were made of mismanagement and lack of economy and some capital works were criticised from start to finish, and accounting was deployed in the contests that ensued.



## **Chapter 5: Accounting and Accountability**

As an independent trust, the TIC was accountable to various groups such as the users of the Tyne, the traders and manufacturers, as well as political bodies such as the Government and Newcastle Corporation. Chapter 5 looks at the increasing pressures of accountability from internal as well as external parties, which was reflected in an increasing desire for better and more detailed accounting information. It also explores the influence of changes in the industrial environment on accounting information and techniques. For example, the TIC seems to have been influenced by the North Eastern Railway Company in its consolidation of accounts. At the time of its adoption by the TIC, the technique was relatively unheard of. Also, with the advent of the accountancy profession arguably there was mounting pressure for professional accountants and auditors to be appointed by the Commission.

As we have seen in Chapter 3, in the early 19th century there was increasing resentment that political power in the municipalities should be in the hands of a wealthy few, which sparked the move for a 'Municipal Investigation' resulting in the Municipal Reform Act, 1835. This Act applied to 184 English and Welsh boroughs and attempted to bring Corporations more in line with the social and demographic changes brought about by industrial progress, and ultimately to make them more accountable to the ratepayers.

Before this Act, corporations were more in the nature of private rather than public institutions; and were responsible to their members, the freemen,<sup>7</sup> rather than the citizens at large. They looked after the interests of the freemen rather than the welfare of the town as a whole:

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<sup>7</sup> 'All members of the Newcastle Corporation were Freemen and had vested interests in the town. They elected the Common Council and monopolised the powers and offices of town government before the 1835 reform.' Brackenborough. [2003. p.53].



Until their publication in pamphlet form by the Newcastle Corporation from 1818, the accounts could only be inspected by Companies and Freeman [Brackenborough, 2003, p.53].

Halcrow [1953, p.200] adds:

It was recognised that there was room for improvement in the methods of book-keeping ... A number of petitions addressed to the Common Council by the Stewards of the Incorporated Companies focused attention on the accounts and prepared the way for change.

In 1823 'the accounts were published in a pamphlet form and all the details clearly arranged under distinct heads' [Mackenzie, 1827, p.641]. In consequence of this increase in public accountability of local authorities in England and Wales, the Newcastle Corporation, the body responsible for collecting and distributing the town's wealth and for the improvement of the River Tyne in the first half of the 19th century, came under the public spotlight. When accounting data was published it gave the opposition a lobbying tool, resulting in the change in control of the Tyne to the newly formed TIC, as has been explained in detail in Chapter 3. For its part, the TIC came under the spotlight even more than its predecessor and was accountable to a whole host of different parties as to how it was funded, how the commissioners spent public money, and how they conducted their managerial affairs.

## **Membership**

As the TIC was a trust it was accountable to the wide band of parties who had an interest in the River Tyne. With the trade on the River increasing, as a consequence of various factors such as the development of steam, increase in the demand for coal and river improvement works, the River grew in importance. The greater volume in trade resulted in an increase in revenues generated from the users of the River, in the form of taxes and dues. This in turn fuelled the voices of the many users of the River who increasingly wanted a say in its affairs.



The constitution of the TIC had been the subject of much controversy at its inception, and sporadic outbursts on this matter occurred during the early years, especially with regard to the representation of interested parties. The TIC was made up of councillors from the various councils. Six from Newcastle, two from Gateshead and three from Tynemouth were appointed by their respective councils. A further three members were appointed from the South Shields Improvement Commission. There were also four life members, mainly coming from a seafaring background, who were not to be replaced when deceased.

Significant criticism of the representation of the TIC arose as interested parties became dissatisfied with the management of the Tyne. Matters came to head in 1869 when an attack was made by Tynemouth, deploring the constitution of the TIC as ‘never ... acceptable to the public’ and ‘favouring Newcastle’. In 1871 representation was requested at Jarrow, and soon afterwards a bill was presented to Parliament to amend the TIC constitution by the addition of 13 members. It was opposed by the TIC on the grounds that the TIC had proved a success, and that to amend the membership would expose it to earlier expressed antagonisms, especially those involving Newcastle and Shields. The Bill was withdrawn as it did not have sufficient financial backing to get through Parliament, especially as it would have incurred legal costs to battle against the TIC. However, a similar Bill was presented in 1874. Moreover, this time it had the backing of the prominent merchants and shipowners – Palmer Bell, Andrew Leslie and Tone – and enough financial power to fight for the Bill in Parliament. In view of the great expenditure and improvement works on the Tyne, the Bill proposed that the membership of the TIC should include representation from the dues payers as well as public representation through the Admiralty and the Board of Trade.



Ultimately, the membership of TIC was changed allowing traders on board for the first time, thus reflecting the importance of trade, the growth in industry and the resulting widening in the accountability of the TIC to other parties. By the 1875 Tyne Improvement Act, six more members from three classes of dues-payers (shipowners, coalowners, and traders, each with two members) were created. Now the TIC had 24 members in all. At the same time, and significantly, the dues-payers were empowered to elect an auditor of the TIC's accounts, thereby giving them a control at the heart of the TIC's operations. Although, at this time, the auditors were not qualified people or independent, but were instead members elected by their respective councils or by the dues-payers, it was a significant move. For the first time the dues-payers had an elected member to represent their own interests when looking at the function of accounting of the TIC. One life member died in 1881. By the 1886 Tyne Improvement Act, the Corporation of Jarrow was allowed one member on the TIC. Perhaps reflecting the growing strength and importance of trade, by means of the 1898 Tyne Improvement Act, the membership of the dues-payers at the close of the century had been increased to 15 (five members from each section). So, 'representation is now divided equally between the Riparian Municipalities and the Payers of Tyne Dues' [Urwin, 1898, p.5].

As the published accounts of the TIC developed and disclosure increased, interested parties in the Tyne could observe where the revenue was generated, and more importantly, how it was being spent. For example, it will be seen in the following chapter when looking at the Coble Dene Dock project, how accounting information was deployed in retarding the progress of the works, as opposition saw the expenditure as wasteful and unnecessary. Furthermore, by increasing the representation and allowing the appointment of auditors by the dues-payers, the



accountability of the TIC to a wider group of stakeholders increased. One can argue that without the availability of accounting data, the affairs of the TIC would have been of limited access to the interested parties on the outside. The types of accounting reform and significant accounting issues relating to the TIC and the River Tyne are the topics of the following sections of this chapter.

### **Bookkeeping and Presentational Development**

As mentioned in Chapter 4, the man behind much of the financial reform of the TIC was James Guthrie, TIC accountant. He was appointed accountant to the TIC in 1852 and took on the role of Secretary to the TIC in 1853, formally being appointed to the office in 1861. Mr. Stevenson MP said of the late James Guthrie:

He gave to the business of the Commission his great abilities, his great care, his admirable memory, and the extreme caution which characterised all his business transactions. The finances were of a limited character at first, and then soon they grew under his hand and under his management until they had attained their present important dimension [Guthrie, 1880, pp.xii-xiii]

One significant reform proposed by Guthrie was the consolidation of the TIC funds. It was not consolidation as we understand it today incorporating key calculations such as good will, minority interests and distinctions between pre and post acquisition profit. They were aggregated statements, however a new idea at the time [Coombs and Edwards, 1996]. This is examined below.

*Consolidation of TIC funds:* When the technique of consolidating the TIC's funds was first proposed by the TIC in the early 1870s, it was a relatively unheard of concept, especially so for public bodies. It can be seen from the following extract from the Newcastle Corporation proceedings that consolidation was a new idea:

In seeking to consolidate the funds by Act of Parliament, the



Commissioners apply to do what they have never done before and it is a most extraordinary position for any public body to take up ... Parliament has never yet sanctioned such a proceeding with any body of Commissioners [NTCP, 1872, p.176].

As was seen in the previous chapter, the TIC had four separate funds relating to four different areas, the river, piers, moorings and docks. What was proposed by Guthrie was to amalgamate the presentation of these funds, and to have, 'as far as the public are concerned, only one fund, to be called "the Tyne Improvement Fund"' [ibid, p.193].

There were two main factors dominating Guthrie's proposal for consolidation. Firstly, the accounts needed simplifying for lenders to understand as they were complex and increasing in complexity as further borrowing powers were granted. This retarded the process of procuring loans and thus the development of the Tyne. Stevenson, MP, wrote of Guthrie's consolidation idea as:

that scheme of his which he suggested and carried out successfully of amalgamating all the funds of the Trust which were so confusing in their variety, and which it was impossible to make outsiders understand with reference to the nature of the security which the Commission offered them when they advance money [Guthrie, 1880, p.xii].

Guthrie himself showed an awareness that simplification was a key factor in negotiating loans:

In consequence of the numerous Tyne Improvement Acts, and the successive additions rendered necessary from time to time to the Commissioners' borrowing powers, these powers became so complex that simplification and consolidation became absolutely necessary. Not only were there four distinct and independent funds to explain to lenders, but three of those funds had each different borrowing powers of it own [ibid, p.177].

It simplifies the borrowing of money so far as the public at large are concerned. Experience has shown that it is often difficult and sometimes troublesome to make people comprehend the difference between these funds [NTCP, 1872, p.194]

Whittred's [1986, p.114] research on the evolution of consolidation in



Australia by corporate groups during the early-mid 20<sup>th</sup> century finds that ‘an increasing reliance on debt,’ was a key factor in the decision to consolidate accounts. This was also true of the TIC, as essentially the proposal of consolidation afforded more solid, more substantial and more permanent security to those who lent money to the TIC. All funds could be used as one as collateral security; and as a larger amount, it was expected that lenders would be more willing to offer their money at lower rates of interest:

They will be able to borrow money at a cheaper rate of interest on the consolidated fund than on the separate funds. They expect that they will be able to save from a quarter to one-half per cent in this way. On £3,000,000 of money that would amount to something like £15,000 a year [NTCP, 1880, p.194].

It is interesting to note that when Guthrie first proposed consolidation in an 1871 Memo directed to the Finance Committee of the TIC, he wanted ‘consolidation embracing the whole of the trust and powers of the Commission’ [Guthrie, 1871, p.2]. However, his subsequent comments suggest that he was aware that this may have been a step too far at that time:

If it is considered by the Commissioners that the time has not yet arrived for promoting a General Consolidation Act, the borrowing powers might be consolidated [ibid].

It is worth mentioning here that the TIC used the North Eastern Railway Company as a point of reference when proposing its own accounting changes; and consolidation is a prime example: ‘The North Eastern Railway Company a short time since consolidated all their different accounts or funds’ [ibid, p.194].

Ultimately, so far as the general public were concerned ‘there will only be one consolidated fund, so far as the Commissioners are concerned the accounts will be kept entirely separate and distinct’ [Guthrie, 1880, p.196]. These initial proposals caused some concern amongst the Newcastle Corporation, who in a meeting



discussing the proposed Bill, feared that if a fund were in deficit and another in surplus then the one in surplus had to bear the burden of the other:

If one thing does not pay its expenses, another thing that is in a more favourable position is to suffer the penalty of the non-payment of the other [NTCP, 1872, p.176].

There was no objection to the concept of the consolidation of accounts from a presentational point of view as the Corporation were aware of the great benefits alluded to by Guthrie, but urged the TIC to 'let those funds which Parliament has given you for distinct and specific purposes be appropriated for the purposes for which you receive them' [ibid]. These concerns were easily dismissed by the TIC, as to have done otherwise would have exceeded their statutory powers and been illegal: 'It is illegal otherwise and every member of the Commission would be personally liable for the misapplication of river funds' [ibid, p.194]. Once this point had been clarified, there was no further opposition to the consolidation of accounts, and Guthrie's proposal was accepted. Thus, the 1872 Tyne Improvement Act<sup>8</sup> consolidated the borrowing powers of the TIC:

The simplification and consolidation of the borrowing powers has proved of the greatest advantage. Everything that savours of complexity and restriction raise doubts, and uselessly impeded the easy raising of capital; but with a simple power of borrowing equal to the requirements of the case, the Commissioners, with their splendid river and docks expanding commerce of the Tyne, ought to obtain money at as low rates as any other harbour or great trust of the United

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<sup>8</sup> Main points of 1872 Act: Consolidated the Tyne Improvement Fund the Tyne Piers Fund, the Northumberland Dock Fund, and the River Moorings Fund into the Tyne Consolidated Fund for borrowing purpose. Section 17 'Except for the purposes of providing and discharging the principal and interest of money borrowed on the security of the Tyne Consolidated Fund, it shall not be lawful for the Commissioners to apply the rates, dues and sums received by them on account of any of the four funds, or any part of the same, for any purpose of any fund other than the fund on account of which the same are received; and the Commissioners shall keep separate accounts of the receipts and payments on account of, and of the money of each of the four funds accordingly; and the Commissioners shall also keep a separate account of the money borrowed on the security of the Tyne Consolidated Fund as a capital account; and shall also keep a separate account of the interest paid thereon; and shall from time to time apportion and charge the amount of that interest among and to the four funds in proportion to the respective amounts of capital from time to time appropriated, out of money borrowed on the security of the Tyne Consolidated Fund, for the credit of the four funds respectively,' [TIA, 1872]



Kingdom [Guthrie, 1880, p.205].

As a result of the 1872 Tyne Improvement Act the amalgamation and consolidation of all existing rates and dues into one general fund resulted. This was called the River Tyne Consolidated Fund. For the purpose of providing security for monies to be borrowed, the accounts belonging to each fund were to remain separate and distinct. However, the layout of the published accounts could now be rationalised:

The accounts would be kept substantially as at present but only one Banking Account would be requisite instead of four, one set of Mortgage Securities and Interest Warrants instead of four, and one Balance Sheet, showing at a glance, the exact financial position of the Commissioners [Guthrie, 1871, p.2].

The 1872 Act required the TIC to keep a separate account of the money borrowed on the security of the Tyne Consolidated Fund, and also a separate account of the interest paid thereon. Looking at the published accounts of the TIC, the most obvious change was that the revenue and capital accounts became consolidated. There is no doubt that these changes simplified an increasingly complex accounting system for borrowing purposes, as mentioned above.

*Proposals for further consolidation:* It was obvious from the accounts that some funds were in surplus and others in debt, and those in debt were paying interest on the amounts that had been borrowed to fund the improvement works. A few years after the initial consolidation, some TIC members thought that this was just wasting money, as if the 4 funds were consolidated for expenditure purposes as well as borrowing, the funds in surplus could help finance the other funds, resulting in a reduction in interest and borrowings.

A letter [1876] was written by a TIC member to the Newcastle Corporation



stating:

You will see that I have not entered upon the often repeated question of payment of interest on the Docks Fund debt out of the surplus from the other funds... Your opinion that this is authorised by the Act of 1872, and is merely a question of bookkeeping may be correct, but I believe the contrary. I am more than ever convinced that the last Act as to the appropriation of the borrowing powers is a mistake, and there appears to me to be only one remedy, namely an application to Parliament to consolidate all the Commissioners funds *for all purposes*. [*italics theirs*]. The dues payers, coal owners, and others being deeply interested in the subject, I propose making this letter public.

Indeed these ideas had been opposed by the Newcastle Corporation when contemplating the initial 1872 Bill. However, now after seeing the benefits of consolidation resulting from the 1872 Act, the TIC wanted to take the consolidation of funds one step further. Moreover, bearing in mind that the opposition to the initial consolidation proposal had been mainly concerned with river funds being applied for dock purposes, it was suggested that the three river related funds – the Tyne Improvement, Moorings and Piers Funds – be consolidated, but the Dock Fund to remain separate.

The Tyne Improvement Fund was in surplus and other funds in deficit. It was argued that Tyne Improvement Fund, ‘the great feeder of the Commission’ [NTCP, 1889, p.12], bore a large share every year of the expense of maintaining the River Police (included in the Moorings Fund), as well as the works carried out on the River, for example river dredging and assisting with the piers work. These factors culminated in a proposal to take consolidation a step further and in 1877

it was proposed to take another step in the direction of simplification and consolidation of the different funds, and to amalgamate and consolidate the Tyne Improvement Fund, the Moorings Fund, and the Piers Fund, into one general fund, to be called the “Tyne River Fund” It was not contemplated that the amounts applicable to those three different funds should be lessened or altered in any way, but, inasmuch as the revenues for those three funds were all derived from taxation levied upon the whole commerce of the river, it was thought a simpler



and cheaper plan to raise such revenues in one collection instead of three collections. The Commissioners would thus have had to administer two simple trusts, a river trust and a dock trust, and the keeping of accounts would have been much simplified and improved [Guthrie, 1880, p.193].

This proposal made up part of a Bill that also included an application to Parliament to increase the borrowing powers of the TIC. As we have seen in Chapter 4, there was great opposition to this Bill and its failure to pass through Parliament resulted in the works being suspended on the Tyne. One of the reasons for the failure of the Bill was the plan for further consolidation; and when a new Bill was proposed, ‘the amalgamation of the three funds was left out, as this proposal had led to much misconception’ [Guthrie, p.202]. The misconception was over the use of river funds for dock purposes. Many saw the construction of the Coble Dene Dock as a white elephant and feared that if these consolidation plans succeeded revenues generated from the River would not be spent on river improvements, but would be wasted on the dock. These fears proved unfounded, but for many, the further consolidation plans were a step too far at this point in time.

However, with the passage of time as the improvement works began to be completed, plans to consolidate the funds were revisited by the new TIC Secretary, Urwin. He was conscious that in the past opposition to consolidation plans had been spurred by a fear that funds would be misapplied and used for purposes that they were not created for. Now, with the works drawing to a close, this was no longer a burning issue. In 1885 a recommendation was put forward for the complete fusion of the river funds and the dock fund, but with the capital and revenue accounts of each fund to be kept distinct for statistical and other purposes. Extracts are taken from his notes proposing the fusion of funds of the TIC:

The River, Piers, and Dock Works are rapidly drawing to a close, and as they now form practically *one undertaking*, there is no advantage to



be gained from continuing to keep separate accounts of the several funds so as to shew up deficiencies on some and surpluses on others ... Except for borrowing purposes and the payment of interest, the Northumberland Dock Fund, cannot receive assistance from the other funds, and its revenue account has, for some years past, shewn a deficiency. Last year the deficiency amounted to £28, 194 14s 3d., and it is not probable that the receipts will, for some time to come increase at a rate sufficient to cover the annual charge for interest, working, maintenance, and management and wipe off the accumulated cash balance. Some means of meeting the growing deficiency will therefore have to be found. This may be done in two ways, either:-

1<sup>st</sup> – By obtaining power to contribute from time to time the Tyne Improvement, Moorings, and Piers Funds, for the purpose of the Dock Fund, such sums as the Commissioners may think fit, or

2<sup>nd</sup> – By the complete fusion of the River Funds and the Dock Fund, even if for statistical and other purposes, the capital and revenue accounts of each fund should be kept distinct as at present.

The latter appears to be the better mode of dealing with the matter, for the following reasons:- The Commissioners' Dock system is merely the corollary of the deep water port which they have created, and with which it forms one undertaking; the different authorised works are all approaching completion; nothing is to be gained by continuing independent sets of accounts ... No opposition, or objections on the part of the public is likely to be raised against the suggested fusion which whilst it can prejudice no one, is calculated to increase still further the financial stability of the Commission, and there is no reason to suppose that Parliament will not readily assent to it [Urwin, 1885, pp.2-3]

Therefore, a proposal was placed before the TIC that the Commissioners should be permitted to amalgamate the four funds for all purposes, so that they could take money from one fund for the purpose of another fund, and ultimately wipe out the deficiencies. These proposals were accepted by the TIC and Newcastle Corporation, and went one step further in 1890 when the policy of 'maximised consolidation' was at last realised. The reasoning behind keeping separate and distinct accounts was now being questioned, as it was not clear why this was done:

All the funds [should] be consolidated, and when that was done the commissioner ought to be able to borrow money at from 3 to 3 ¼ per cent without difficulty... [the 1872 Act], for purposes best known to themselves the accounts of each of the funds were kept separately, each had its separate book-keeping account, and separate statements of each of the four funds were presented to the auditor [NTCP, 1889, p.xxiv].



Accountability was clearly an issue. The Acts of Parliament required the TIC to separate dock and river expenditure, and keeping the accounts distinct enabled the TIC to demonstrate to interested parties that they were acting legally.

The plans for further consolidation would enable the Commissioners to ‘complete their different undertakings by means of their surplus revenue, instead of increasing their borrowing powers’ [ibid]. Another councillor concurred that ‘it seemed a right principle, that the surplus revenue should be applied to complete the capital works, and so to prevent an increase of the debt’ [ibid]. The Commissioners wanted to have an amalgamation of the four funds for all purposes, which was made law by the 1890 Tyne Improvement Act when all funds were merged without restrictions into one fund called the ‘Tyne Consolidated Fund’. However, the TIC continued to show all receipts and expenditure in respect of each fund separately in its books and accounts in order to enhance transparency, and to perhaps forestall any unwelcome investigations into how the TIC managed its funds. We return to the pressures caused by the threat of external inquiries later in the chapter.

*Level of disclosure – Newcastle Corporation:* The study has examined all the available accounts relating to the River Tyne in the 19<sup>th</sup> century: the Newcastle Corporation up to 1849 and the TIC from 1850 to 1900. As anticipated, it was found that the accounts showed more detail as the century progressed, reflecting the increase in accountability of these public bodies. As Chapter 3 related, in the early years of the 19<sup>th</sup> century the Newcastle Corporation’s accounts were limited in detail as well as in who could view them. The accounts prior to 1809 ‘showed the total receipts, total payments and the balance at the end of the year in three lines’ [NTCP, 1833, p.86]. The County Rate Act of 1815 required local authorities to publish their



accounts:

Until their publication in pamphlet form by the Newcastle Corporation from 1818, the accounts could only be inspected by Companies and Freeman [Brackenborough, 2003, p.53].

However, the stewards of the incorporated companies saw a need for the improvement in bookkeeping and this paved the way for change. Up to this point in time, it was members of the localities that initiated changes in the accounting function. It was not until 1835 that any statutory laws affected the way that Corporations practiced accounting. It was the 1835 Municipal Corporations Act that obliged corporations to produce an annual return of receipts and expenditure in addition to ‘a full abstract of his [the Treasurer’s] accounts’. These were to be available for inspection and purchase by the ratepayers at ‘a reasonable price for each copy’ [MCA, 1835, s.93]. This Act did not mention the form the abstract should take, but did state that it ‘should show all monies received ... and disbursed’ [ibid, S.60]. Furthering the accountability of corporations, ratepayers could also inspect the corporations’ books, accounts and minutes. As was seen in Chapter 3, ultimately the increased disclosure fuelled the battle for the control of the Tyne. By using the published accounts, the opponents of the Newcastle Corporation were able to engineer the transfer of the control of the River to the TIC in 1850.

*Level of disclosure – Tyne Improvement Commission:* The following section looks at the development of the published accounts under the TIC. The most significant ramifications of the change in control of the River were presentational changes, development in accounting information, and in the role of the auditor, all of which increased the pressure for the appointment of qualified auditors and accountant in the latter years of the 19<sup>th</sup> century.



The TIC was obliged from the outset to publish accounts and appoint four auditors, one from each of the respective boroughs represented on the TIC (Newcastle, Gateshead, North and South Shields). This was set by the Tyne Improvement Act, 1850. The TIC used a bilateral account format, with an account for capital and an account for revenue. The accounts were printed and circulated amongst the members of the corporations of the different boroughs represented on the TIC, as required by the Act.

Before the TIC gained full control of the River, some councillors had expressed a concern over how the accounts were going to be kept following the change in control:

They were about to part with a considerable amount of revenue, and which at present was under their control, every shilling of which, in the receipt and expenditure, was set forth in properly audited and published accounts, to which every inhabitant had access; but by the bill there was no provision for the due accounting of the revenue they were about to give up; and the Commission might or might not publish their accounts. Surely there was something wrong [NTCP, 1850, p.129].

However, these concerns proved unfounded, as when the Tyne Improvement Bill was discussed in council a week later it was politely pointed out that there were clauses which required

the Commissioners to publish their accounts in detail...and for the appointment of four auditors, one for each borough represented in the Commission,' [Ibid, p.315].

How the accounts were to be kept and presented was left to the bookkeeper to decide, although initially he was the same individual who had kept the accounts of the River for the Corporation in previous years. Moreover, the Newcastle Corporation still had influence through their representation over the accounting function, and the bookkeeper continued to produce accounts for the TIC in the same format as he had done in the past.



However, this method of accounting turned out to be inappropriate as the newly appointed auditors refused to pass the accounts in their present state. For the first two years, no accounts were published as they were kept ‘in the old form used by the Corporation, which was not a desirable form’ [NTCP, 1852, p.xxi]. All the accounting information was presented in one sheet comprising a ‘Tyne Improvement Fund Account’ together with a Balance Sheet. The first year’s accounts are illustrated below. It was the auditors who

declined to pass [the accounts] in their present form. This was due to their archaic and inappropriate format being based on the old Newcastle Corporation and not as a trust as they were now. After some discussion it was agreed that an accountant be employed, to be selected by the Chairman, to remodel the accounts for the past year and to put them in a form in which they might easily be kept in future [NTCP, 1852, p.xxvi].

The auditors were ordinary council members and not qualified professionals. Moreover, there was no requirement that they should be. The fact that the accounts were declined in their present state and deemed inappropriate for a trust suggests that at least one of the auditors had some accounting knowledge, or that some form of guidance was available at the time relating to trust accounting. An attempt to retrieve background information on the elected auditors proved unsuccessful, leaving their accounting expertise open to conjecture. The role of the auditor is examined in more detail later in the chapter.

Given the apparent lack of ability of the inherited bookkeeper, reform of the presentation of the accounts and a replacement bookkeeper were necessary. The current bookkeeper’s lack of knowledge of double-entry was taken as an indication of his unsuitability for the post:



FIGURE 5  
1851 TIC Accounts [Newcastle Central Library, L627.22, CRD2141-5]

Dr.		Cr.	
An Abstract of the Tyne Improvement Fund Account,		for the Year ending 9th November, 1851.	
		By Amount brought forward	18899
		By Balance in favour of the Commission	2568
			21467

Examined and found correct,  
ALEX. GEO. GRAY,  
JAMES SMITH,  
GEORGE DAVISON,  
ROBERT ECKLESS,

Dr.		Cr.	
BALANCE SHEET of the RIVER TYNE COMMISSIONERS		for the Year ending 9th November, 1851.	
To THE CORPORATION OF NEWCASTLE, for Principal Sum	37540		
" SIR W. A. MAXWELL, Bart., for Howdon Property	12000		
" THE CORPORATION OF NEWCASTLE, for River Craft	2150		
" SUNDET TENDERS' ACCOUNTS unpaid, for Materials furnished for Dragger and River Craft	439		
" TYNE IMPROVEMENT FUND, for Balance of Revenue Account, as per preceding Statement	22538		
" CASH PAYMENT to the Corporation for Machinery, &c., transferred to the Credit of Stock, and to the Debit of the Tyne Improvement Account for Revenue	1125		
	5922		
	85163		

G. H. GILCHRIST, ACCOUNTANT.  
Newcastle-upon-Tyne, 5th October, 1852.  
Examined and found correct,  
ALEX. GEO. GRAY,  
JAMES SMITH,  
GEORGE DAVISON,  
ROBERT ECKLESS,

Dr.		Cr.	
ACCOUNT for the Year ending 9th November, 1851.			
By THE TYNE IMPROVEMENT FUND ACCOUNT, for Principal Sum	37540		
" HOWDON PROPERTY, for Purchase Account	12000		
" E. K. FURNESS, for Advance on Account of Conveying Ballast, for 1851 year	2120		
" WILLIAM WALKER, for advance of Office Disbursements for 1851 year	40		
" THE CORPORATION OF NEWCASTLE, for Quay and Town Docks for the quarter ending 10th October, in receipt of Collection	375		
" STOCK AND RIVER CRAFT, for Amount	3300		
" THE NORTHUMBRIAN AND DURHAM DISTRICT BANKING COMPANY, for Cash in their hands	1418		
" Cash in the hands of the TREASURER	2236		
	58119		
	85163		



The worthy old treasurer has not the slightest notion of double entry, although he is, I believe, very accurate in his own way, an accountant had to be employed [NTCP 1854, p.103].

James Guthrie was the newly appointed accountant and he proved to be a success: 'I [Councillor Mather] must say that since then the accounts have been kept in the most unexceptionable way' [ibid, p.103]. The presentation of accounting information developed as soon as Guthrie took over. The existing 'Tyne Improvement Fund Account' and 'Balance Sheet' were augmented with three new accounts: 'River Moorings Fund Account' and 'Balance Sheet'; 'Tyne Piers Fund Account' and 'Balance Sheet'; and a 'Northumberland Dock Account'.<sup>9</sup> The former two accounts were brought about by the 1852 Tyne Improvement Act, which dealt with plans for new pier works and additional moorings, as well as obtaining control of the existing ones; the latter in 1853 by the commencement of works on the Northumberland Dock. Another accounting reform that showed that the TIC was moving away from the old municipal accounting format was with the change in the accounting reference date: 'The Finance Committee recommend that the financial year of the Commission terminate with the 31<sup>st</sup> December, instead of the 9<sup>th</sup> November' [NTCP, 1854, p.xix], which change was put in place.

The TIC's accounts were presented in full in the NTCP minutes at the start, whereas towards the end of the century they were presented in summary form with explanations of the changes from the previous years stated.<sup>10</sup> The full accounts were 'attached' to the report but not printed, presumably because there was too much information to present in the minutes, a summary being more beneficial. It is obvious from looking at the accounts themselves that the volume of detail grew rapidly as the century progressed. New accounts were created, the accounts showed more detail,

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<sup>9</sup> See Appendix for an example of the accounts presented for the year ending 1853 [FIGS 6-12].

<sup>10</sup> An example is presented in the Appendix [FIGS. 13-14].



and explanatory notes were added.

*Expansion in detail:* This section traces the expansion of the TIC's annual report. Some additional accounts were created by statutory requirement. However, this was not the case with all the accounts. Given that no explanations could be found as to why these accounts were created, it seems reasonable to assume that the TIC felt it beneficial to disclose further information to satisfy the various parties to which it was accountable. In the earlier years of its existence especially, the TIC was subjected to inquiry after inquiry that aggrieved the Commissioners, which will be examined later in the chapter.

In 1856 an addition to the Tyne Piers Fund Accounts was made in the form of 'A Statement showing the entire Income and Outlay of the Tyne Piers Fund' from 1852-1856, which then carried on in subsequent years. In 1860 a new statement of 'Income and Expenditure of the Tyne Improvement Fund for the 10 years ending 31<sup>st</sup> Dec, 1860', and then each year thereafter, 11yrs, 12 yrs etc, was presented. An example of the 10 account is shown below. In 1861 a 'Statement of Sums Paid for Conveying Ballast' and a 'Statement of the Quantity of Ballast Discharged' were added. In 1862 it was a 'Statement of Costs of Working Steamboats'; in 1865 a 'River Tyne Police Superannuation Fund'; and in 1866 a 'Statement of Howden Yard Account'. The accounts for 1872, the first year of consolidation, saw a consolidated revenue and capital account. The 1883 accounts included 'A Statement of the Revenue and Expenditure of the Harbour Lights, Boats and Beacons Account'; and the ones for 1891 'River Police Superannuation Fund Income and Expenditure', 'River Police Pension Fund Income and Expenditure', and 'River Police Balance Sheet'. These last three accounts were required by the Police Act of 1890.



Dr. A Statement of Income and Expenditure of the Tyne

	REVENUE	£	s.	d.
BALLAST DUES	£197912 9 4	63084	0	4
Less Expenses of conveying Ballast	63228 9 0			
SHIP and BOAT DUES		21727	2	10
COMMODITIES brought in as Ballast		9897	6	4
COALS, CISTERS, and CHARTERS (three-eighths)	£54371 10 10	63790	15	0
Less Commission paid to Trinity House	580 15 10			
BALLAST OFFICE DUES on Ships		20202	13	3
GROUNDAGE and PLATEAGE DUES		2871	5	4
BALLAST WARRANTS		4665	13	1
QUAY and TOWNS DUES	£234365 15 11	21905	1	4
Less Expenses of Collection	2460 15 7	9	0	0
MISCELLANEOUS				
Total Revenue received		205052	17	6
MORTGAGES CONTRACTED		26578	0	0
To BALANCE		231630	17	6
		3108	13	1
		£ 240739	10	7

JAMES GUTHRIE,  
Accountant.

The above balance of £231630 17s. 6d. is accounted for by the Balance Sheet as follows:-  
Amounts remaining with the Corporation on call due to sundry parties  
Outstanding Accounts due to the Corporation  
W. B. Lambton & Co., for Overdraft at Bank  
Less Amounts due to Corporation:-  
Northumberland Dock Fund  
River Wear Navigation Fund  
Tyne Dues Fund  
Corporation of Newcastle, for Revenue Collected  
Small Accounts Outstanding

£7100 0 0	0
7226 14 0	0
9783 5 1	1
£21,211 15 1	
£894 10 7	7
930 3 1	1
109 6 0	0
1252 13 2	2
58 10 2	2
£3108 13 1	
£231630 17 6	

Improvement Fund for the 10 years ending 31st Dec., 1860. Cr.

	OUTLAY.	£	s.	d.
DEEMING STOCK accumulated		34102	3	8
DEEMING ACCOUNT for Expenses of Dredging				
Less debited to Northumberland Dock, and received from sundry parties for Dredging	£95378 9 8			
	33379 6 11	59999	2	4
RIVER WORKS other than Dredging		23096	6	6
PORT and HARBOUR CHARGES		21707	4	4
INTEREST (NOTE A.)		34713	14	6
SALARIES		25386	6	10
PARLIAMENTARY and LAW CHARGES, and SURVEYING ACCOUNT (NOTE B.)	£40895 11 11	86359	13	4
Less received	1406 18 7			
HOWSON PROPERTY				
Less received for Rufts	£7896 3 10	2184	2	7
	5741 1 3			
HOWSON PROPERTY for outfranchisement		1320	16	8
		£ 240739	10	7

THOMAS RIDLEY,  
CHAPMAN.

NOTE A.-The Tyne Improvement Fund commenced with a debt due to the Corporation of Newcastle of £27,345, made up of the following:-  
NOTE B.-Of the above £40,895 11s. 11d. £25,000 was for costs incurred previous to the Act of 1829, but made chargeable by such Act on the Tyne Improvement Fund.



In the year 1899 a voluminous amount of accounting data was produced. Whether this was because the annual report provided a summary of the last 50 years, or because this was the last year of the 19<sup>th</sup> century, or incidentally, the first year that a professional accountant was employed, or indeed a combination of these factors is open to conjecture. The statements, in the usual form, were presented and are included on the following pages as an example of the increase in detail and to show the development of the accounts at the end of the century, including the total consolidation. The ‘Consolidated Revenue Account, Year ending 31<sup>st</sup>, 1899’, ‘Consolidated Capital Account, Year ending 31<sup>st</sup>, 1899’, and the ‘General Balance Sheet, 31<sup>st</sup> December, 1899’ are presented below [FIGS 16 - .18].

In addition to these three reports which were typical of previous years, the annual report for 1899 <sup>11</sup> included the following additional statements: ‘Statement showing amount of Capital Expenditure, Revenue Receipts, Revenue Expenditure including Interest, Surplus Revenue before Interest has been charged, Interest, Surplus or Deficiency on Revenue Account after Interest has been charged, and Balance of Sums expended in respect of Northumberland Dock and Albert Edward Dock from 1853-1899’; ‘Statement of Income and Expenditure of the Northumberland Dock and Albert Docks, for the years ending 31<sup>st</sup> December 1898 and 1899, shewing in each case the proportion in respect of General Merchandise and Mineral Traffic (Coals and Coke)’; ‘Statement of Income and Outlay of the Tyne Improvement Fund during the 49 Years ending 31<sup>st</sup> December, 1899’; ‘Statement of Income and Outlay of the River Moorings Fund, from 17<sup>th</sup> June, 1852 (the date of the Tyne Improvement Act) up to 31<sup>st</sup> December, 1899’; ‘Statement of Income and Outlay of the Tyne Piers Fund, from 17<sup>th</sup> June, 1852 (the date of the T.I. Act) up to

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<sup>11</sup> Examples illustrated in the Appendix [FIGS 19 -21].



FIGURES 16 - 18  
TIC Accounts, 1899 [L627.22, Cr D2141-5]

TYNE IMPROVEMENT  
CONSOLIDATED CAPITAL ACCOUNT,  
DR.

£	s.	d.
50,106	14	6
8,826	14	4
To SURPLUS REVENUE FROM CONSOLIDATED REVENUE ACCOUNT		
By BALANCE OF SURS EXPENDED		
£ 58,932 s 10		

COMMISSION.  
Year ending 31st December, 1899.

Cr.

£	s.	d.	£	s.	d.
15,165	10	5	19,857	7	1
535	5	3	309	17	4
1,838	16	7	19,347	9	9
139	6	4			
563	5	11			
800	13	6			
420	7	7			
6	18	7			
136	2	11			
TYNE IMPROVEMENT FUND.					
By Dredging applicable to Improvement of River					
" Whitehill Point River Works					
" River Walls above Newcastle Bridge (Work No. 20) (from					
Work No. 20 to No. 21) and (from Work No. 21 to Rylton)					
" Groynes from Work No. 21 to Rylton					
" River Works at the Spaldale, Newburn (Works Nos. 21-23)					
" River Works adjoining Newburn (Work No. 24)					
" Engineering and Surveying					
" Ball Quay Point River Works—less Bonus received from Property					
" New Lighthouses					
Deduct—Stock and River Craft (Tug "Conqueror" damaged and sold)					
RIVER MOORINGS FUND.					
By New Moorings					
TYNE PIERS FUND.					
By Engineering					
" North Pier Re-construction					
" South Pier Works					
Deduct—Stock in hand on 1st January, 1899,					
transferred to Tyne Piers Works Account					
NORTHUMBERLAND DOCK FUND.					
By Engineering					
" Albert Edward Dock—Construction of, &c. (including Working					
Plant and Rolling Stock)					
" Whitehill Point Timber Quay					
" Dock Extension (including Working Plant and Rolling Stock)					
" Northumberland Dock—Alterations and Improvements					
" Whitehill Point Stairs (Nos. 1 and 2)—Alterations and					
Improvements					
" Whitehill Point Stairs (Nos. 3 and 4)—Alterations and					
Improvements					
" Whitehill Point Stairs (No. 5) and Railways					
£ 44,863 s 10 d					
61,033 s 10					



Dr. TYNE IMPROVEMENT  
CONSOLIDATED REVENUE ACCOUNT,

COMMISSION.  
Year ending 31st December, 1899.

Cr.

TYNE IMPROVEMENT FUND.									
To River Tonnage Dues on Shipping carrying Charges—									
To and from Foreign Ports	£	s.	d.	£	s.	d.			
Ditto Coasting Ports	89,477	1	7						
Ballast Dues									
Less—Cost of Conveying Ballast	2,907	0	0						
	2,266	11	7						
Commodities brought in as Ballast	640	9	2						
Ballast Warrants	943	14	3						
Bridge Dues	20	0	0						
Vessels not Breaking Bulk	10,098	5	6						
River Steamboat Dues	15,815	10	8						
Coal and Coke (River Tyne Export Dues)	1,312	18	7						
River Dues on Goods, &c.	72,315	13	1						
River Craft Licences	38,539	5	4						
River Licences	48	0	0						
North and South Shields Steam Ferry—	11	13	0						
Market Place Ferry Tolls									
Ditto Ferry	£13,763	15	0						
Whitehill Point Ferry do.	2,489	19	11						
Rents, &c.	1,465	12	7						
Rents, &c.	115	12	7						
Rents of Properties	12,772	0	1						
Tyne Dock Landing Stages	2,944	9	11						
Piers Landing Stages	308	16	8						
	145	10	3						
Harbour Lights, Buoys, and Beacons Dues, &c.	2,501	2	1						
	2,501	2	1	245,024	13	2			
RIVER MOORINGS FUND.									
To Tonnage Rates	11,741	10	11						
Miscellaneous	11	9	3						
				11,753	6	2			
TYNE PIERS FUND.									
To Tonnage Dues on Vessels Clearing Outwards—									
Foreign Ports	26,881	14	10						
Coasting Ports	13,892	1	5						
				40,773	16	3			
NORTHUMBERLAND DOCK FUND.									
To Ship Dues Inwards	2,995	15	6						
Ditto Outwards	10,867	11	8						
Coal Dues	11,794	19	5						
River Craft and Sundries	1,307	15	0						
Export and Export Traffic—(Docks, Smiths, Quays, and Jetties), &c., viz.—									
Coal Shipment Dues									
Warehouses, Labourage, Hoilage, &c.	£9,524	18	7						
Warehouses Rents	13,465	8	5						
Rent of Houses, Yards, Land, Depots, &c.	3,753	6	1						
	3,056	8	10						
	26,800	1	11	62,856	3	6			
Carried forward				365,577	19	1			

TYNE IMPROVEMENT FUND.									
By Salaries and Collection of Dues	£	s.	d.	£	s.	d.			
Port and Harbour Charges	6,329	11	3						
Engineering and Contingent Expenses	6,169	3	0						
River Wall as the Levee, South Shields, Murel Stump Groynes, and Head Wave Trap, &c.	513	13	11						
Prizes Goose Point River Works	1	11	10						
Bill Point River Works	5	12	4						
Newcastle Bridge	1,383	9	7						
River Works opposite Blaydon and near Seala	86	9	8						
Blaydon Cutting	1	14	0						
Developing, preparation for Maintenance	26,069	0	0						
North and South Shields Steam Ferries	12,440	0	6						
Property Account	2,946	19	6						
Tyne Dock Landing Stages	534	2	2						
Piers Landing Stages	128	6	10						
Parliamentary and Law Charges	671	6	3						
Income Tax	1,457	10	4						
Commissions, Stamp, &c., in re Loans and Tyne Improvement Redeemable Stock (Proportion)	154	7	5						
Registrar's Charge on Tyne Improvement Redeemable Stock (Proportion)	125	6	6						
Premium on Debenture Stock prepaid (Proportion)	30	2	2						
	72,273	10	2	74,404	14	8			
Harbour Lights, Buoys, and Beacons	2,221	3	6						
RIVER MOORINGS FUND.									
By Maintenance of River Police	£3,000	17	4						
Add—Police Pension Fund Deficiency	157	8	9						
	3,158	6	1						
Maintenance of Moorings	£1,786	11	6						
Salaries and Collection of Dues	53	6	4						
Miscellaneous	45	12	9						
Income Tax	78	1	4						
Commissions, Stamp, &c., in re Loans and Tyne Improvement Redeemable Stock (Proportion)	7	10	0						
Registrar's Charge on Tyne Improvement Redeemable Stock (Proportion)	2	1	6						
Premium on Debenture Stock prepaid (Proportion)	0	9	10						
	572	14	8	5,131	19	4			
TYNE PIERS FUND.									
By Salaries and Collection of Dues									
Miscellaneous—									
Rents, Rates, and Taxes	£435	16	8						
Less Rents received	140	8	2						
	295	8	6						
Sundries	216	13	11						
Parliamentary and Law Charges	642	2	5						
Income Tax	2,488	4	9						
Upkeep of Piers	27	8	8						
Extraordinary Repairs to Piers (South Pier)	1,580	3	0						
Commissions, Stamp, &c., in re Loans and Tyne Improvement Redeemable Stock (Proportion)	15,682	18	7						
Registrar's Charge on Tyne Improvement Redeemable Stock (Proportion)	169	4	3						
Premium on Debenture Stock prepaid (Proportion)	44	6	6						
	10	13	4	21,108	15	2			
Carried forward				166,735	9	2			

FIGURE 17



TYNE IMPROVEMENT  
GENERAL BALANCE SHEET,

Dr.

To TYNE CONSOLIDATED FUND—	£	s.	d.	£	s.	d.
SURPLUS FOR PRINCIPAL FUNDS .....	14,887,397	18	0			
To HOWLON PROPERTY, W. T. PIERCE AND OTHERS .....	19,000	0	0	1,327,507	18	0
To RUNDY TRADING'S ACCOUNTS, AND ESTIMATES, ETC., OUTSTANDING, PAYABLE BY COMMISSIONERS .....	22,704	9	10			
To NORTHUMBRIA SHIPBUILDING CO., LIMITED— Deposits on Account of Purchased Money for Land at Howdon .....	510	0	0	23,414	9	10
*NOTE.—Of this there has been appropriated under clause 15 of Tyne Improve- ment Act, 1872, as under:—						
Tyne Improvement Fund .....	£2,120,400	3	0			
River Mooring Fund .....	35,000	0	0			
Tyne Pier Fund .....	759,690	3	3			
Northumbria Dock Fund .....	1,327,200	10	10			
Unappropriated .....	£1,248,319	17	4			
	150,278	0	8			
	£4,887,207	18	0			

ROBERT URWIN,  
Secretary.

COMMISSION.  
31st December, 1899.

Cr.

By TYNE CONSOLIDATED FUND—CAPITAL ACCOUNT.	£	s.	d.	£	s.	d.
BALANCE OF FUNDS EXPENDED:— Up to 31st December, 1899 .....	4,086,352	5	8			
During 1899 .....	8,896	11	4	1,035,379	0	0
By NORTH AND SOUTH SHIELDS FERRY UNDERTAKING:— Capital Account .....	63,706	8	7			
By LAWEY PROPERTY, SOUTH SHIELDS:—For Cost .....	16,750	16	8			
By HOWDON PROPERTY:—For Cost .....	14,489	0	10			
By NEW OFFICES ACCOUNT .....	30,988	6	10	124,913	11	11
By HOWDON YARD, FOR STOCK OF MATERIALS ON HAND .....	25,634	19	2			
By TYNE PIERS WORKS, DUBO .....	8,341	19	8			
By COMBE DENE YARD, DUBO .....	4,059	8	0			
By SUNDREY ACCOUNTS, ETC., OUTSTANDING, PAYABLE TO COMMISSIONERS, INCLUDING REVENUE due on 31st December, 1899, but not paid over on that day .....	£12,534	15	3			
By BARCLAY & CO., LIMITED, LONDON.—To Interest on Tyne Improvements at Redemptible Stock, due 1st January, 1900 .....	8,458	6	8			
By BARCLAY & CO., LIMITED, LONDON.—To in their hands on 31st December, 1899:— At Newcastle on General Account .....	£135,584	1	11			
Ditto Harbour Light, Buoy, and Beacons Account .....	279	9	2			
At North Shields on Former Account .....	1,765	15	4			
	161,638	6	5	200,680	15	11
*NOTE.—Expenditure charged to Capital Account up to 31st December, 1899 .....	£5,941,505	4	0			
Less Accumulated Surplus Revenue to Date .....	1,856,125	4	0			
	£4,085,379	0	0			
				4,421,012	7	10

JAMES C. STEVENSON,  
Chairman.



31<sup>st</sup> December, 1899'; 'Statement of Income and Outlay of the Northumberland Dock Fund, from the Commencement in 1853, to the 31<sup>st</sup> December, 1899'; and 'Summary Statement of Income and Outlay from 10<sup>th</sup> November 1850, to 31<sup>st</sup> December, 1899'.

Significantly, when examining the available accounts it was apparent that there was a greater increase in detail, disclosure and volume of statements presented from 1882 onwards. The 1882 Local Authorities Act may have prompted this as the auditing and accounting provisions of the Act promoted increased disclosure by public bodies. Thus, the Act 'strengthened and modernised the audit and account provisions of the earlier Municipal Corporations Act 1833' [Coombs and Edwards, 1993, p.65]. However, as stated earlier, not all of these additional accounts were adopted as a result of statutory requirements. Therefore, they are likely to have been innovations by Guthrie and his successors, further improvements to the accounts continuing after his death. Guthrie was clearly capable in his financial role:

[Mather, chairman of the TIC] had looked over these accounts that morning, and he could not but say, as he had said on former occasions that they did a great deal of credit to their accountants for the plain and straightforward manner in which they were made out and these accounts gave a clear history of the finances of the Commission from the commencement to the present time as could be obtained anywhere [NTCP, 1865, p.xxx].

## **Audit**

We now turn to an examination of the auditors' role and audit function within the TIC, with a brief comparison to the Newcastle Corporation and private companies. It was shown earlier in this chapter that the auditors refused to pass the accounts of the TIC in the early years of its formation, suggesting they had some accounting and auditing knowledge and ability. The following reference also suggests that the auditors were men who understood accounts as it reveals Hedley, the TIC auditor



representing the Newcastle Corporation, being involved in auditing the books of other concerns:

Mr. Ridley reported that the auditors had examined and passed the accounts; and Mr. Plummer added that Mr. Hedley, one of the auditors, had told him that he was also auditing the books of three or four other large concerns, and that the books of the Commission were in the best state of any he had seen, and were a great credit to the Commission and to Mr. Guthrie [NTCP, 1858, p.xxvi].

As noted earlier, four auditors were initially appointed, one from each of the represented boroughs; and in later years an additional auditor was appointed representing the dues-payers.

The requirements imposed on the auditors were minimal in comparison to the audits of today; and the scope of the audit was limited to comparing receipts and payment vouchers with the accounts, and checking that the balance of cash agreed to the bank statements for the first 25 years of the TIC's existence. One way of ascertaining the scope of the auditors' responsibilities is by looking at their reports. In the early years, the auditors' reports were very brief, consisting of one line statements: in the 1850s, 'Examined and found correct'; by 1865, 'Examined and Audited and found Correct'. As might be expected, there was an increase in the detail of the auditors' reports in line with the increased volume of accounting information and disclosure. For the accounting year ending 31<sup>st</sup> December 1872, the first year of the consolidation of borrowing powers, the 'Auditors Certificate' read:

We have examined the accounts of the Tyne Improvement Commissioners for the year 1872. Compared the same with the various sources of receipt, and the vouchers for payments, and certify the same to be correct. The Balance of Cash as shown by the Cash Books, corresponds with the sum in the Bank, as per Pass Books on the 31<sup>st</sup> December, 1872. Thomas Hedley, Thos. Clarke, H.E. Smyth and W.G. Montgomery, Auditors

This was a marked improvement in information given, yet clearly the audit was still limited in scope.



However, by 1875 the level of detail in the report had increased significantly, with the phrase ‘true and correct’ – the precursor of today’s ‘true and fair’ – first appearing. The report for the previous year also illustrates a marked increase in the scope of the audit compared to two years earlier, suggesting that audit procedures were developing at this time. The last 30 years of the 19<sup>th</sup> century marked the advent of an accountancy profession that aimed to uphold professional standards of conduct. The increase in the scope of the TIC’s audit might therefore have been a response to criticism that it should have been appointing independent professional auditors, as there were no statutory requirements at the time that would have increased the level of audit work. Whatever the explanation, the 1874 auditors’ report revealed a much more rigorous standard of audit:

The Auditors have examined the accounts of the Tyne Improvement Commissioners for the year ending 31<sup>st</sup> December, 1874, and find the abstract of such accounts, which they now sign, dated this day, contains a true and correct statement of the receipts and payments of the Commissioners during the year. The vouchers for payments have all been examined and compared with the cheques and coupons for such payments. The various items of receipt of renewal for the year have been checked with the returns of the various collectors of dues and other sources and found to be correct. The mortgage register and cash book of Consolidated Fund have been carefully gone through, to see that all sums borrowed are properly accounted for; and the appointment made in such cash-book of the principal sums borrowed during the year, and in hand on the 31<sup>st</sup> of December last, is found to be correct, as shown by the cash-books of that fund, and of the different other funds of the Commissioners. The balance sheet shows the existing amount of the mortgage debt of the Commissioners, as well as the various other sums due to or by the Commissioners, and is in all respects a fine representation of the financial position of the Tyne Improvement Commissioners on the 31<sup>st</sup> December, 1874. T. Hedley, W.G. Montgomery, Thos. T. Clarke, H.E. Smyth [NTCP, 1875, p.xii]

Around this time that the utilisation of ‘non-independent’ auditors was increasingly criticised, as greater accountability was seen as coming from an independent professional auditor:



With reference to the question of audit, he had always maintained that in reference to public bodies, where money was raised by taxation all the accounts should pass through the hands of a professional auditor... it was desirable that some third person should audit the accounts rather than a person who was concerned in the expenditure... He hoped the time would come when all monies raised by taxation and by Parliamentary powers would be audited by professional auditors, so that they should see exactly that no cavil could be made as to the mode in which they were spent [NTCP, 1876, p.376]

One of the factors in the delay in the appointment of a professional might have been cost, as the present auditors did their work gratuitously. A few years later further criticisms were made of the audit process:

The duty of an auditor was not simply to examine a bill and voucher, and compare the two. The business of an auditor in his humble judgment was to see that where a man paid an account for £10,000, £10,000 was taken for the same, legitimately due, and that it was applied equally to legitimate sources; otherwise the position of an auditor was a farce and a mockery [NTCP, 1881, p.90].

It was not until 1899 that a 'Chartered Accountant's Certificate' was first produced in addition to the 'Statutory Auditors' Certificate' to signify the appointment of a professional. Why this occurred then is unclear, but it was in this year that a chartered accountant was first employed to examine and check the books and accounts of the TIC and to report on the annual accounts alongside the existing auditors. He carried out much of the same work as the auditors, as the auditors' and accountant's statements read very much the same with regard to the scope of their work. The auditors were still elected members from the various councils and dues-payers. However, now two of the five individuals did have professional accounting qualifications. One can only assume that the independent accountant was necessary to enhance the accountability of the Commission. Thus we see an overlap in the work completed by both parties. Extracts of the Auditors' and Accountant's Certificates are presented here to illustrate the point:



Auditors: 'examined the Accounts, Books, and Documents' of the TIC and 'found them correct'.

Accountant: 'completed an examination of the Books and Accounts' of the TIC and 'find them correct'.

Auditors: 'Vouchers for the various payments were produced, and the Revenue compared with the Return of the Collectors ... and the whole accurately correspond'.

Accountant: 'I have checked the Revenue with the Collectors Returns, and Vouchers have been produced and examined ... and find them correct'.

It is interesting to contrast here the function of the audit and auditors within the Newcastle Corporation and private companies in the 19<sup>th</sup> century, the former drawing from two papers by Brackenborough [2003, 2008], who examined the auditing function within the Newcastle Corporation, and the latter from a paper by Maltby [1999], who looked at the auditing process within British private companies.

In the early years of the 19<sup>th</sup> century, Newcastle Corporation had 24 auditors in total, two from each of the 12 mysteries.<sup>12</sup> The auditors were often elected by reason of their 'attending the election meeting' rather than according to ability [Mackenzie, 1827, p.637]. They were often the subject of severe criticism:

During many years the auditors placed large sums under one head, without any proper explanation ... merely signed the chamber-clerks general account, as entered into the book, without examining either bills or receipts ... [As a] consequence of this neglect of duty in the auditors, negligence and corruption began to creep into the revenue department of the Corporation until at length a spirit of dissatisfaction spread through the whole burgesses [ibid].

In 1809 most of the mysteries nominated men who 'appeared willing and qualified to

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<sup>12</sup> There were 12 Companies called Mysteries, representing groups of traders. These were Merchants, Mercers, Drapers, Skinners, Tailors, Saddlers, Bakers and Brewers, Tanners, Cordwainers, Butchers, Smiths, Fullers and Dyers. The earliest trade incorporated in 1436 (Smiths) and the last in 1621 (Butchers). There were also 15 societies called Bye-Trades. These were not Mysteries. These were Mariners, Weavers, Barber Surgeons, Cutlers, Shipwrights, Coopers, House Carpenters, Masons, Glovers, Joiners, Millers, Curriers, Paviours, Slaters and Glaziers. The earliest trade incorporated in 1426 (Coopers) and the last in 1656 (Paviours).



FIGURE 22  
TIC Financial Reports, 1900 [L627 T987T, Cr 629062A]

STATUTORY AUDITORS' CERTIFICATE.

The Statutory Auditors have this day examined the Accounts, Books, and Documents of the Tyne Improvement Commission for the Year ended 31st December, 1899, and find them correct. The Abstract contains a true Statement of the Income and Expenditure during the year.

Vouchers for the various payments were produced, and the Revenue compared with the Returns of the Collectors and other Officers, and the whole accurately correspond.

We have pleasure in expressing our entire satisfaction with the manner in which the Accounts are kept, and also with the order and regularity of the documents submitted to us.

Dated this 12th day of February, 1900.

RICHD. HY. HOLMES, F.C.A., Newcastle Council,  
A. GILLES, Gateshead Council,  
HENRY CHAPMAN, F.C.A., South Shields Council,  
THOS. J. WALLACE, Tynemouth Council,  
A. ERNEST BELL, Donw Bayona,  
Auditors.

CHARTERED ACCOUNTANT'S CERTIFICATE.

24, GRANGE STREET WEST,  
NEWCASTLE-UPON-TYNE,  
31st January, 1900.

DEAR SIR,  
I have completed my examination of the Books and Accounts of the Commission for the Year ending 31st December last, and find them correct.

I have checked the Revenue with the Collectors' Returns, and Vouchers have been produced and examined for the various payments. I have examined the Consolidated Revenue Account, the Consolidated Capital Account, and the General Balance Sheet, as prepared for publication, and find them correct.

The Revenue and Capital Accounts contain the true result of the whole of the year's operations of the Commission, and the Balance Sheet comprises a full and complete statement of affairs at the close of the year.

I have also audited the Accounts of the River Police Pension Fund, and the security in the hands of the Treasurer has been produced, and verified by me.

The Accounts have been placed before me in the same expeditious and satisfactory manner as heretofore.

I remain,  
Yours faithfully,  
RICH. ORMOND, F.C.A.

R. URWIN, Esq., Secretary,  
River Tyne Commissioners,  
Newcastle-on-Tyne.



fulfil their oath' [ibid], and the unsatisfactory accounting procedures of the past were exposed. For example, auditors found substantial arrears owing to the Corporation. They also discovered accounts from former years that had never been closed. As a result they resolved 'that the whole accounts be laid before us this year, or we will not sign the book' [1809, Auditors report of proceedings]. After a short dispute with the Corporation, the auditors obtained the remaining books and accounts requested and were able to complete the audit. In 1823 'the accounts were published in a pamphlet form and all the details clearly arranged under distinct heads' [ibid, p.641]. Cook [1961, p.222] adds that 'in 1830 the auditors secured the publication in full of the corporation accounts ... This was a substantial victory in a battle that had lasted since 1809'. By the Municipal Corporations Act of 1835, it was stated that Burgesses of every Borough

shall elect from the Person qualified to be Councillors by a Majority of Votes, Two Burgesses, who shall be called Auditors of such Borough [Hein, 1978, p.53].

One auditor was to be elected by the ratepayers and the other by the Mayor, to whom each party was responsible respectively. The elected member was not to be a member of the Council whereas the Mayor's auditor was obliged to be. However, like the TIC, 'there was no requirement that the auditor should possess any financial expertise' [Edwards, 1992, p.69].

What can be seen here is that in the early years of the 19<sup>th</sup> century the total lack of order in the accounts was exposed by the auditors; and it was they who secured vital changes to the way in which the accounts were presented and published. This is in stark contrast to the perceived lack of value of the non-independent auditor in the second half of the 19<sup>th</sup> century. As was the case with the TIC, by the 1860's the role of the Corporation's auditors and scope of the audit were being openly criticised.



In this case, the chief critic was Gillespie, who was one of the auditors of the borough accounts and also an accountant. He wrote a letter to the Newcastle Corporation stating:

I feel it my conscientious duty to direct your attention to some of the defects of your system of book-keeping, and the utter inefficiency of the present so called audit [NTCP, 1861, p.16].

Gillespie's outburst was in response to a major cash deficiency found in the accounts of the Corporation in 1860. This was only discovered after an investigation of the bookkeeping of the Corporation was made after the death of their current bookkeeper in 1859. Again, it was the death of an officer that was the catalyst for an investigation that aimed to improve the accounting procedures. The seriousness of the defalcation led the Newcastle Corporation to employ independent auditors, Messrs. Robert Fletcher & Co, to investigate the cash deficiency. Their investigation was to last 13 years!

Gillespie criticised the audit as 'being neither more nor less than the checking of the vouchers with the cash amount of the Treasurer for the current year' [ibid]. No examination was made of the receipts. In his opinion 'such is not the audit contemplated by the act under which the auditors discharge their duties' [ibid]. In particular he ascribed the defalcations to the 'absence of a regular *balance sheet* [emphasis his]' [ibid]. The Newcastle Corporation replied by making clear the role and scope of the auditor, and by emphasising that it had fulfilled its statutory obligations:

The functions of the auditors were merely to check what had been paid, and see that the proper vouchers were produced, and that the payments had been made by the authority of that Council [ibid, p.17].

... It is not a question for the Auditors. The act clearly intends the Auditors to be a check upon the Treasurer, not upon the Council; and their duties are so plainly defined in the 93<sup>rd</sup> Section of the Municipal Act ... That section enacts that the Treasurer 'shall submit true



accounts of all money received and paid by them, with all the Vouchers and papers relating thereto, to the Auditors every half year, for the purpose of being examined and audited, and if the said accounts are found to be correct, the Auditors are said to sign the same' ... However inadequate Mr Gillespie, as an Accountant, may consider this to be, as an Auditor he is assuredly is not empowered to go beyond it [NTCP, 1862, p.65].

However, the situation was to change. 11 years later, on the receipt of Fletcher & Co's report recommending many changes to the accounting function of Newcastle Corporation, it was suggested:

It would be proper for the Town Council to appoint a professional gentleman resident in the locality, to make on their behalf every three months, an exhaustive audit of the whole of the Corporation's accounts [NTCP, 1873, p.120].

Further details of the investigation and the recommendations of the report can be found in Brackenborough [2008], but it is sufficient to say here that in 1873 a professional accountant was employed by the Newcastle Corporation, F.R. Goddard. He soon became responsible for a monthly audit, which by 1888, took 281 days. Goddard's detailed audit programme [1887] for each significant department of the Newcastle Corporation is reproduced by Dicksee [1892, pp.94-103] in his celebrated text entitled 'Auditing'.

The appointment of a professional accountant by municipal corporations to audit their accounts was discretionary and occurred at different times. Brackenborough [2008] looks at this in more detail. However, what is clear is that there was no statutory requirement to appoint a professional even as late as 1887. Thus, Hein [1978, p.50] observed that Parliament refused a bill proposing that 'provision should be made that the accounts of ... Municipal Corporations and other Local Bodies should be audited only by properly qualified accountants'.

Turning now to the private sector, Maltby [1999, p.29] states that in the latter years of the 19<sup>th</sup> century there was an increase in the growth of auditing work,



‘accompanied by an increasing preference for the professional (normally a qualified accountant) over the lay auditor’. This was the same within the TIC and Newcastle Corporation. She summarises the development in the statutory requirements of the audit as follows:

The 1844 Joint Stock Companies Act, which first made it possible to gain corporate status by registration, required companies to produce a ‘full and fair’ balance sheet which was to be audited and presented to every general meeting of shareholders ... In 1856, however, the Act for the Incorporation and Regulation of Joint Stock Companies abandoned the provisions relating to accounting and audit which had subsisted since 1844 ... Subsequent legislation tightened the rules for certain important classes of company. Requirements for the publication of accounts were introduced for railways in 1868, life assurance companies in 1870, the gas industry and waterworks in 1871, building societies in 1874 and the electricity industry in 1882. But for general companies the permissive regime went unchanged until a Companies Act was passed in 1900 which required the presentation to shareholders of an audited balance sheet [ibid, p.33].

‘The scope of the auditor’s duties was determined by the company’s articles’ [ibid, p.38]. As was the case in the public sector, ‘there was no statutory requirement for the auditor to hold a professional qualification’ [ibid]. It was not until a Companies Act of 1947 that the auditor was required to be a professional accountant. However, like in the public sector, professionals were appointed at the discretion of companies before it became a statutory requirement.

To sum up there is a good deal of overlap in the development of the auditing function within the TIC, the Newcastle Corporation and the private sector. In all three cases there was considerable development during the 19<sup>th</sup> century in auditing and accounting, but most of this was undertaken voluntarily rather than as a result of statutory regulation. In the case of the TIC, we have identified the professionalisation of accountancy and the practices of the North Eastern Railway Company as being possible sources of influence.

Another factor promoting change was the wide range of internal and external



interests to which the TIC was accountable for its financial proceedings. The two most prominent catalysts for reform coming from within were agitation by dissatisfied members; and the deaths of significant officials, which gave the TIC the chance to reflect on the current position in order to build on what was good and to improve even more. For example, strict credentials were required for the replacement accountant after Guthrie's death in 1880:

The committee suggest that in the appointment of a new Secretary, he should be possessed of considerable experience in finance, drawing up reports, &c, a good correspondent, and able to direct and control the whole business of the Commission [NTCP, 1880, p.xxviii].

Internal controls were improved and new ones put in place to promote efficiency, reduce risk and to minimise losses. For example, increased auditing was promoted to add checks on the various departments of the TIC; separation of duties was introduced with regards to stock ordering and signing pay sheets. These and further examples are examined below. The catalyst for external inquiries came from parties dissatisfied with how the affairs of the River were being managed. It will be seen that accounting data was used to base objections to the current position in the many inquiries that the TIC were subjected to, and that in turn the TIC used accounting data to contest these remarks. We start off by looking at internal measures to promote accountability and to improve accounting for the River.

### **Accountability: internal structures**

From the early days of the TIC, the accounting controls put in place were constantly scrutinised by internal parties, culminating in significant accounting reform. James Mather, Councillor and Tyne Improvement Commissioner, was more often than not the instigator for change. Welford [1894] includes a brief biography of Mather in his series *Men of Twixt and Tweed*. From his study, it appears that Mather's background



was in medicine and philosophy. He was in his early 30's when he became involved in politics and was seen as a 'radical reformer':

In the *Gateshead Observer*, *Shields Gazette*, and other local journals, Mr. Mather frequently wrote upon the improvement of the river Tyne, so as to render it a harbour of refuge. When the control of the river passed into the hands of a Commission he was elected one of the members to represent South Shields. For many years he advocated at the river board the liberal course of improvements which has converted the Tyne into one of the noblest river estuaries in the United Kingdom [ibid, pp.183-4].

Many of his reforms involved highlighting deficiencies in the current arrangements, simplifying, modifying and creating new accounting methods and systems for the purpose of economy, as well as to make them easier to use, examples of which are illustrated below. In many cases it was through analysing accounting data that Mather based his arguments, contesting the current position [Francis, 1990] and seeking reform.

In the following example, by using accounting data, Mather requested an investigation into the 'dues and other charges producing revenue', and the salaries relating to the collection and management of these, with the aim to reduce, simplify and modify them:

Mr. Mather moved, 'That a committee be appointed to investigate the dues and all other charges producing revenue to the River Tyne Commissioners, also the salaries paid under the same; for the purpose of simplifying, modifying, or reducing such dues, charges and salaries.'...Mr Mather computed the income of the Commission from all sources at £36,000 and the amount of salary paid for its collection at £3,000 a year. He thought this sum enormous, and the manner in which the taxes were levied highly objectionable [NTCP, 1855, p.xxxiv].

Another example showing Mather's ideology of reform to simplify and economise, and his use of accounts to reveal the current position and press for change is shown here:

Mr. Mather moved 'That a Select Committee be appointed to



investigate the cost and general expenses of the engineering and other officers of this Commission, with a view to their better economy, and to the consolidation of such offices ... He said the expenses of the Commission were enormous, and he might mention that the engineering expenses of the piers now in course of construction cost them 5 per cent upon their permanent outlay of £166,000 in five years, that their expenses for the Northumberland Dock had cost them 2 or 3 per cent., and their general expenses on the river cost them about 4 ½ per cent making a total of 11 ½ per cent on their various works. The engineering at the Liverpool docks was only at the rate of £2 13s. 4d. per cent. They had three chief engineers for their works on the Tyne, a number which he thought not at all necessary; and some practical plan should be gone into. Any person who went into the accounts of the Commissioners must be palpably struck with the enormous expenditure for their officers, and with the complicated and expensive arrangements [NTCP, 1858, p.xxxviii].

Presumably, the figures relating to Liverpool were derived from the Liverpool Commission's own published accounts, as Mather's statements do not reveal his source.

The result of this request was an 1858 Select Committee investigation. The report at 14 pages was concise in length. The most significant recommendation was the amalgamation of the Harbour Masters and Police departments, as the former was not fulfilling its duties. However, reading further it can be seen part of the reason why: 'The Harbour Master is seldom or ever afloat ... his Assistant and two Boatmen who have no boat' [Select Committee Report, 1858, p.12], and as a consequence could not carry out their duties! The report recommended that 'the Harbour-Master of Newcastle should retire ... as well as his assistant and that a successor, without any assistant, be appointed' [ibid, p.14]. By amalgamating these two offices and retiring certain members, the aim was to increase efficiency and reduce costs.

Perhaps the biggest internal inquiry of the TIC occurred in 1880 after the death of the TIC secretary, James Guthrie. Clearly, the catalyst for this inquiry was Guthrie's death as it was not pending beforehand. This practice was not new as the death of a senior officer, the bookkeeper, within the Corporation of Newcastle



stimulated an in depth investigation into the accounting practices in 1859 [Brackenborough, 2008]. The 1880 inquiry was set up to ‘investigate into the general office arrangements of the Commission’. It was carried out by Tyne Improvement Commissioners, was not independent, therefore.

The report of this investigation, ‘Report of the Investigation Committee’ (herein ROIC), over 100 pages in length, was a private and confidential report, not made available to the public, and consisted of an analysis of each department, including interviews and evidence and recommendations for change. It stated in detail the names of the different officers with their salaries and duties in the employment of the Commissioners, and also included a digest of the method of bookkeeping in operation and the principles adopted in dealing with the finances of the Commission. Further, the report recommended areas for improvement and change for each of the departments investigated. I have produced an organisation chart from the report, detailing the most significant members of each department, which is shown below together with detailed excerpts from the report relevant to the main accounting issues. As would be expected, there was a hierarchy in the TIC organisational structure and in the lines of reporting. It was found that information was reported upwards and instructions downwards. This was the case within the individual departments and for the organisation as a whole, with ultimate responsibility for financial and engineering matters resting with the Secretary and Engineer respectively.

Each department had a chief, master or manager who was responsible for the running of their department. Each had their own accounting responsibilities, which consisted of various tasks, such as making up pay sheets, pay bills, ‘making up Yearly Statements required by Secretary as to expenditure on various works’ [ROIC, 1880, p.13], and ‘preparing statements of past and estimates of future works’ [ibid,



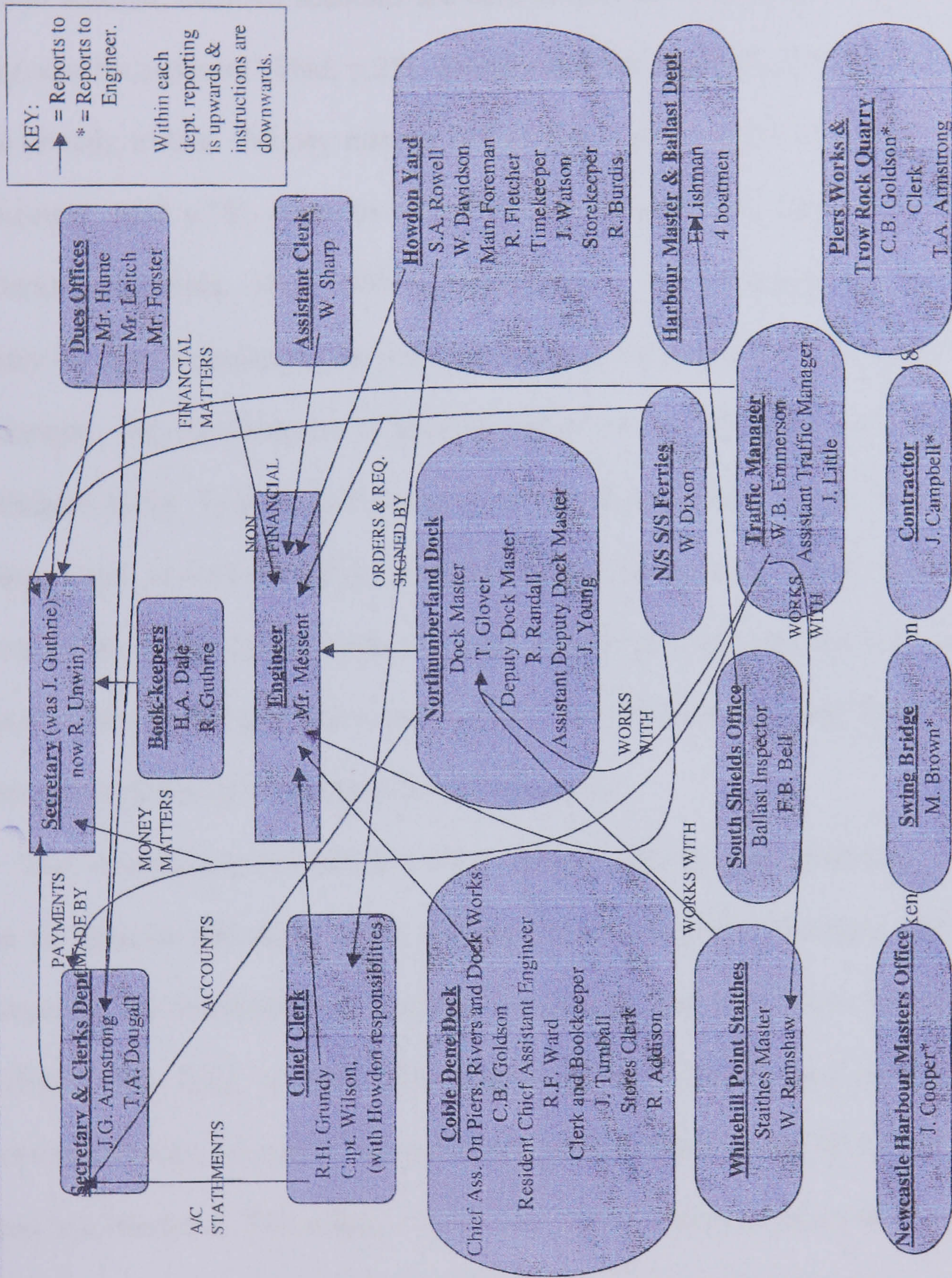


FIGURE 23

Organisation Chart, produced from the 1880 Investigation Committee Report



p.25]. Ultimately, these accounting statements were submitted to Messant, the Engineer, for 'examination and certification' [ibid]: 'Mr Messant signs checks on petty cash account, certified accounts are entered into the Invoice Book, and sent to the Engineer for payment' [ibid, p.25]. These were then reported to the Secretary or handed directly to him: 'Money matters and questions of accounts are all referred to the Secretary' [ibid p.38]. It can be seen that accounting matters were dealt with by the Clerks department, Dues Offices, Bookkeepers and ultimately by the TIC Secretary. In these departments the books containing the financial records were kept. For example, the Bookkeepers department held the set of books for the Tyne Consolidated Fund, Tyne Improvement Fund, Northumberland Dock Fund, River Moorings Fund, as well as various statistical tables. In the Dues office, there were two sets of account-books detailing dues on imports and exports, and two sets of statistical books detailing imports and exports. The Clerks department kept various minutes and registers and subsidiary books of account.

The investigation identified various matters that needed reforming. I have chosen to illustrate the main issues relating to the accounting function that were pinpointed by the Investigation Committee for reform, and also I have documented the reforms that were recommended. Although the double entry bookkeeping appeared satisfactory, the way it was presented needed simplification by recording the accounts into one book. The auditors of the TIC were Council members from each of the represented towns. None were qualified as it was not mandatory for them to be so. Perhaps with the ICAEW having been formed in this year also, a suggestion was made to use an independent qualified paid accountant, and is alluded to again below:

The system of book-keeping recommended itself because of simplicity ... [However] the committee recommended the Commissioners to consider whether it could not be arranged to keep only one set of books instead of five, as at present, and also whether the audit of



accounts at present conducted gratuitously by gentlemen appointed by the Corporations and other public bodies represented, ought not to be supplemented by official paid accountants in future [ibid, p.7].

At the Coble Dene Dock, it was found that the ‘accounts were only kept in pencil, and [Turnball, CDD Bookkeeper] did not balance regularly’ [ibid, p.26]. In another case, the salaries paid to certain members were deemed as being too high and as a consequence a reduction was recommended. Campbell was a draughtsman for the TIC. His salary was £218 pa. Captain Wilson, who worked in the Chief Clerks office, had a salary of £220 pa. It was noted that, ‘he [Wilson] had not much office work’ [ibid, p.12]. It was therefore requested that ‘the salaries of Campbell and Captain Wilson be reduced to £100 and £150 each per annum, respectively’ [ibid, p.15]. This was quite a reduction, and is an indication of the TIC rationally appraising the level of work undertaken by the employees in relation to their salaries.

In another example, it was found by looking at cost statements that the arrangements at Howdon yard were unsatisfactory: ‘The present cost of work done, as shown by the cost statements’ revealed a lack of ‘efficiency’ and ‘economy’, leading to the recommendation for stricter internal controls to be implemented in the form of a new manager and a regular audit under the control of the Secretary:

who shall have the entire control and authority over the whole undertaking, subject nevertheless to such orders as he may receive from the Engineer to whom he (the manager) shall report and hold himself responsible...[and] a regular audit, conducted under the direction of the Secretary, is necessary [ibid, pp.23-4].

In the Harbour Master’s office, the auditors did not check the books at all, and so it was suggested that the role of the present auditors be extended and new checks implemented: The ‘auditors do no interfere with this department’ and the books, such as receipts and payments books for immediate cash transactions, pay bill books, warrant issued books are ‘not checked by anyone’ [ibid, p.49]. In the Dues office, it



was suggested that a travelling auditor be employed with new and extensive duties:

Now that the business of the Commission is becoming so extensive, it may now be well to take into consideration the desirability of appointing a Travelling Auditor, to be charged with the duty of periodically visiting and examining the books, accounts, and cash, at the several Revenue Branches, and the various Petty Cash Accounts; and of reporting to this office the result of such examinations, and of anything affecting the undertaking of the Commission which may come under his notice [ibid, p.82].

The accountability of officers was promoted by rationalising the reporting structure:

[Currently there are] three heads – the Dock Master, Mr Emmerson, and Mr Ramshaw; and in his opinion, things are not very satisfactory. He thinks there ought only to be one head to ensure efficient working [ibid, p.34].

Each managed their own branch and were ‘entirely independent of and unaccountable to the other two’, and ‘harmonious results will be best secured by making one person the chief and the others subordinate’ [ibid, p.44].

From an overall perspective, the ‘most important suggestions’ put forward by the Investigation Committee involved a number of internal control improvements and additions, such as more frequent audits, greater regulation over payments, and a call for independence with regards to the audit:

Regulations as to the signing of Pay Bills, and official certification of accounts for payment. Improved system of keeping Cash and other Books. Regular and frequent Petty Cash and Stores’ Audit at each department, under the direction of the Secretary ... Simple method of keeping Petty Cash Books for universal adoption ... A supplementary and general half-yearly audit conducted by paid professional chartered accountants [ibid, p.79].

Upon receiving the report, Urwin, the Secretary made the following comments suggesting segregation of duties and tighter supervision:

In my opinion the satisfactory working of the office requires that the duties should be rearranged and some what sub-divided; and I think Mr Armstrong ought (in addition to his duties) ... be in a position to exercise in an adequate manner proper supervision over the various other duties of the office, which can scarcely be said to be the case at present [ibid, p.81].



In response to the recommendations of the Investigation Committee, Urwin stated that progress that has been made and agreed for new controls to be put into place. The main areas covered further checks by members, and increasing the amount of accounting documentation made available to them:

A New Cash Book, in which will be entered by Mr Armstrong all cheques in cash received and paid, including petty cash disbursements and sums payable by the Commissioners. This book will contain the folios of the general books in which the transactions finally appear, which folios will be inserted by the book-keeper, who will also at the end of every month check and certify the petty cash balance in the hands of Mr Armstrong ... I have also arranged for an abstract of all outstanding accounts in the general books to be prepared monthly, which can be laid before the Commissioners periodically, in order that special instructions may be given, if necessary, respecting any particular account ...

In connection with the petty cash arrangements, I may mention that I propose opening accounts in the general ledger in the names of the several persons holding the sums advanced. At present no separate account exists, the amounts having been charged direct to Engineer's pay bill account [ibid, p.23]

With regards to the Engineers office, the Investigation Committee recommended preventative measures, such as initialling of the books when money was being passed between clerks, and checking the petty cash:

... institute a regular audit of petty cash by the Head Office. It is also imperative that a system of initialling the books of the several clerks etc who pass money to each other should be strictly enforced, and a better petty cash arrangement introduced, with requisite checks to prevent inaccuracies [ROIC, 1880, p.33].

What can be seen from this and other inquiries is that the need for the TIC to be accountable to a wide range of stakeholders in the River Tyne resulted in significant changes in the way it operated. Significant ramifications include the restructuring of accounts and organisation, the revision of accounting techniques and methods, and improving the system of internal control.



### **Accountability: external bodies**

The TIC was also accountable to a whole host of external bodies. As the TIC was a trust, it was accountable to the many different users of the Tyne – traders, ship-owners, local industries, and the local areas represented by their respective Councils. Because of this, almost anyone could spark an inquiry into the TIC's management of the Tyne. The Government, Admiralty, Royal Commissions, or even the Newcastle Corporation could get involved in carrying out investigations into the affairs and regulation of the TIC. In many cases these external inquiries were not welcomed by the TIC, who saw them as too frequent and excessive. Accounting data provided the TIC with a means of countering them.

Almost from the establishment of the TIC, differences of opinion arose among the Commissioners with respect to the best mode of improving the River, and the manner in which money should be spent. Within only four years of its foundation, the TIC found itself under investigation by a Royal Commission. This investigation was sparked by dissatisfied members of the TIC from outside Newcastle who complained that their localities were being unfairly neglected, despite them providing a large proportion of the TIC's revenues.

Accounting information played a big part in the investigation:

A letter was read from the Secretary of the Royal Commission 1854, requesting information [amongst other things whether] ...the Board of Commissioners appointed in 1850 had worked efficiently; the revenue and expenditure, and how the funds of the Commissioners were applied. [Mr. Mather objected to this, stating that] they had now sufficient data to regulate their own affairs, they had inquiry after inquiry with the same result, and he could not help feeling that the investigation would be one-sided ... [The TIC responded stating that] the Board since its construction in 1850 had worked efficiently ... The question as to income and expenditure is best answered by enclosing copies of the accounts of the Commission since its establishment [NTCP, 1854, p.xxvi].

However, these explanations did not satisfy all interested parties. The six



Shields/Gateshead members pressed for further external investigations to be made using the TIC accounts to base their allegations. They wrote to the Admiralty requesting an inquiry into the way the TIC was being managed. Claims were made of mismanagement, useless expenditure being incurred by the TIC, and the misallocation of revenue in favour of Newcastle at the expense of the Shields trade. As a result, the Admiralty wrote to the TIC requesting accounting information to satisfy their inquiries, and it was by these accounts that the TIC refuted the allegations made. Thus, a letter was sent from the Admiralty to the TIC:

“I am commanded by the Lords of the Admiralty to request that you will inform their Lordships what is the amount which had been received by the River Tyne Commissioners on account of the rates authorised to be levied on vessels entering the port under the 63<sup>rd</sup> clause of the Act of 1852 for the construction of piers at the mouth of the Tyne, and what sums, if any, have been borrowed on security of these rates ... [This was requested because] it had been stated at the Admiralty that the Commission had acted a dishonourable part as public servants, that they had taken the funds which they had pledged themselves to Parliament to apply to a particular work on the Tyne, and had appropriated them to almost private purposes at least to a speculation over which the Commission had sole control” ... The charge that they had been misapplying this fund he [TIC member] utterly repudiated. Not one farthing of the fund raised for the construction of those piers had been applied to any other than the great purposes of the measure [NTCP, 1855, p.liv].

However, pressure from the opposition led to a full in depth inquiry on these issues in 1855. The inquiry extended over several weeks and amounted to over 400 pages of evidence and reports. The inquiry commenced with the TIC members for Shields and Gateshead arguing that the accounts showed that the TIC had enough revenue to carry out the necessary improvement works, affecting their particular locality – namely the piers works – which they maintained were progressing far too slowly:

The accounts show that there is plenty of money ... This is a matter in the conduct of this Commission which has been most detrimental, to the interests of the public ... the piers pointed out by Mr. Rendel, as



one of the operations to be commenced at once, and for which they had provided ample funds; it is most disappointing to them that that should be the state of things ... The works have been executed in a desultory way, sometimes a piece here, and sometimes a piece there; upon no uniform line as it is stated [1855, pp.57-8].

In response, the TIC used the same accounting data to contest these allegations, which shows that the data could be interpreted in more than one way. The TIC focused on the positives of how the expenditure was being used and the progress of the works so far. The Commission showed that the majority of the funds raised had to be channelled elsewhere, and that the works on the piers were underway. Only with time would results be seen, although these were now starting to show:

You said that before you closed your examination, you would like to give some evidence with respect to your financial condition? ... With respect to the funds, in order to show the desire that we have to do the best we can for the harbour of Shields, we have a mooring fund which provides, by a separate tax upon the shipping, for putting down moorings ... The year before the present one, I see there is a balance of the money which we lent to that fund, of 827l 12s 5d, that is, a portion of the general funds of the river applied to putting down moorings, principally in Shields harbour, for the purpose of affording greater facilities to shipping. During the present year, that is the year ending 31<sup>st</sup> December, the accounts are not yet made up, therefore they cannot be handed to the Commissioners in a sufficient state, but I believe it will be found that we have expended from our general revenue on that fund 2,057l and I believe I am right in stating that we are going on now with new works of that description which will incur 4,000l and which will consequently draw from our general revenue next year 2,000l more. Now you are surprised at what becomes of our money, and how little has gone to the improvement of the river, only 2,000l has been applied to the improvement [ibid, pp.230-2].

The opposition responded by criticising where the funds had been spent, arguing that the majority of the expenditure was unnecessary and would have been better spent elsewhere. Concluding for the opposition:

The only point to which I need direct your attention and upon which I need say a word, is the way in which the revenue has been appropriated. It must have startled many of you, as it startled Mr Brunel that on river works or improvements there has not been an expenditure of more than about 2000l a year. It is stated in Mr Stevenson's evidence to be a sum so insignificant that it arrested the



attention of Mr Brunel, and led him to searching examination into various items of expenditure and the ways and means of the Commissioners. The expenditure occasioned by the promotion of the Hay Hole Docks, and the expenditure in opposition to the Tynemouth Docks, were expenditures that ought never to have been incurred, and would never have been incurred if you had had an independent Commission, or a Commission under the control of the Admiralty, or some parties who had no local interests to serve. I say these expenditures are symptoms of disease, and are matters deserving and that ought to receive your anxious enquiry [ibid, p.427].

Thus, the accounting data provided the opposition a tool to argue their case and the TIC to defend theirs. No doubt both parties had a case to argue. This example shows the early teething problems of the TIC with regard to the localities still vying with Newcastle over the allocation of expenditure that was now made visible by the published accounts.

Just as one inquiry finished, another was around the corner, much to the outrage of the TIC. In 1858 it was Parliament that led its own brief inquiry. Owing to the public nature of the inquiry it exposed the TIC to full public scrutiny. The TIC were accused of failing to choose the best tender for piers works, and instead giving the work to a Newcastle man whose tender was greater:

Mr. Hodgson, said...there was one matter which he thought cast a great slur on that body – namely, the order of the House of Commons to prepare a full account of all contracts which the Commissioners had entered into...it was most ungracious and unfair to call for it in the House of Commons, and bring it before the public...the Commissioners had saved £60,000 by accepting the present contract for the piers, and the contractor was an honourable and talented man; therefore they had nothing to conceal [NTCP, 1858, p.xliii].

Even though the TIC was technically separate from the Newcastle Corporation, it still was accountable to it, and this proved to be one of the most resented forms of questioning into the TIC's financial affairs. The TIC argued that they were formed to replace Newcastle Corporation's control of River's affairs, not to be answerable to it. For example, Mr. Mease (Newcastle Councillor) suggested to the



TIC that it would be well to ‘have a thorough examination of the accounts of the Commission, and a general stock-taking, as was done every year by a prudent man of business’ [NTCP, 1865, p.ii]. Similarly, the Newcastle Corporation requested comprehensive accounting evidence to satisfy itself regarding the management of the Tyne when a proposal was put forward by the TIC to further increase its borrowing powers:

Mr. Philipson [councillor] moved for, a return of the sums authorised to be raised and actually borrowed on account of the Piers’ Fund; of all outstanding debts and obligations on this account; a statement of the amount of the estimates made and of the amount expended from the commencement; of the extent of the work remaining to be executed, and of the estimated cost, and of the probable time of completion; also of the annual income anticipated from the increased taxation. A return of the River Fund, shewing the sums authorised to be borrowed and the amount already borrowed; of the amount of outstanding debts and obligations; of the works in the engineer’s general report which have been completed; of those remaining partly or wholly unexecuted, and of the estimated cost [NTCP, 1872, p.xx].

Unsurprisingly, the Commissioners felt aggrieved that

the financial affairs of the River Tyne Commission was continually being called in question by the Corporation. The Commissioners knew their business as well as the Corporation knew theirs, and a great deal better. The finances of the Commissioners had been quite as satisfactorily carried out during the twenty-one years of their existence as the finances of the Corporation [Ibid, p.374].

For its part, the Newcastle Corporation argued that,

as the custodians of the pockets of the general public of that town and borough, he thought it was expressly their duty to watch every measure on money which emanated from the River Tyne Commission [Ibid, pp.374-8].

A further example showing Newcastle Corporation’s belief that the TIC was accountable to them concerned its representation on the TIC:

He had been told that it was not right for this Corporation to criticise the conduct of the River Tyne Commissioners; but this Council elected one-fourth of the members of the Commission, and the election of the representatives constituted, in his opinion, a right to criticise, and, if necessary, to instruct [Ibid, 1885, p.409].



As far as accountability was concerned, the published accounts of the TIC were especially significant because they exposed the way in which the Commissioners used the finances available to them to public scrutiny. As the TIC was an improvement commission, it was natural that the majority of their work should relate to capital works projects. The following chapter looks at how the TIC accounted for these projects and also examines the role of the engineer in the accounting function.



## **Chapter 6: Accounting for Capital Projects**

Chapter 6 looks at accounting for the capital projects on the River Tyne. All trading rivers needed ongoing improvement and the aim here is to consider the accounting issues surrounding improvement projects. In particular, the chapter considers the deployment of accounting data in the political wrangling surrounding these projects; the separation of capital and revenue expenditure, and the question of depreciation; and the management accounting role of the river engineer.

Generally speaking, costs were calculated using projections and were defrayed either by loan or out of income. The cost of structural works was covered by loans, and works of maintenance paid for out of income. An example was shown in Chapter 4 where by the end of 1882, works carried out by the TIC had cost £4.1m of which £3.75m was raised by loans and the remaining £350,000 out of income. Therefore, the manner in which projects were costed, and income was separated from capital, had a major bearing on investment/funding decisions.

As was demonstrated in Chapter 4, accounting data could play a big part as a facilitator or indeed as a retarder in holding up the progression of works by showing that the costs were too great and no funds were available to carry out the works. Consequently, there was a rather haphazard approach taken to many construction works, some only having their foundation stone laid before they were later abandoned, usually due to lack of funds, and others suspended and delayed until funds became available. In this chapter, by using a significant capital project managed by the TIC as a case study, that of Coble Dene Dock (herein CDD), it will be shown how various parties manipulated accounting data to their advantage, either to promote or to try to put a stop to the project. Clearly the theory of using accounts as a



contester is relevant and demonstrated here, [Francis, 1990]. Many felt that the CDD was necessary as the Tyne lacked dock space, and when completed would ultimately increase revenue for the TIC as more ships would use the Tyne. The opposition to the Dock came from the Newcastle Corporation, which argued that the project cost too much, and that trade to the Tyne would increase if the existing docks were improved involving much less expenditure. They accused the TIC of creative accounting by hiding the true cost of the capital works for this dock. Ultimately, owing to the delay brought about by the many conflicts in carrying out the construction of CDD, the original purpose of the dock no longer had the same significance upon completion. For example, with the increase in the use of steam power for vessels, time in the docks was much shorter and as they could carry more cargo, fewer vessels frequented the docks. Seen by some as a misuse of funds from the outset, with hindsight, the expenditure could indeed be seen as excessive and misplaced.

Using river funds for river purposes only and dock funds for dock works only was a constant bone of contention, especially when there were excess funds on some accounts and desperate shortages on others. As was seen in Chapter 5, when the TIC proposed to further their consolidation plans it was argued by the TIC that the docks were feeders of the River, and so transferring funds from one to the other should be allowed as they were interrelated. However, it was not until the dock works were nearing completion that this occurred.

Within this chapter the use of depreciation by the two main users of the Tyne, the TIC and the traders, is also examined. As it was a relatively new concept and one without any real guidance or regulation at the time, some industries adopted it more quickly than others:



After 1800 the use of depreciation in industrial accounting seems to have become more common. The practice was taken up in the textile industries, while between 1830 and 1850 significant developments in the treatment of depreciation occurred in the railway industry [Edwards and Newell, 1990, p.52].

The findings relating to the River Tyne therefore provide a useful supplement to previous studies in helping to build up an overall picture of the spread of the concept. Notwithstanding the importance of calculating income to the TIC's funding/investment decisions, the study found that depreciation was not provided throughout the 19<sup>th</sup> century, even though a depreciation deduction was allowed by the Income Tax Authorities from the 1880's. It is interesting to note here that the TIC was a trading body liable to income tax; and, as pointed out in previous chapters, again there was reference made to the practice of the North Eastern Railway Company (NERC) in the TIC's own accounting documents. The NERC debited the revenue account with capital expenditure. It is clearly shown that categorising depreciation was subjective. It was the same for traders as there was no real guidance on the issue. However, by the end of the century, there is evidence of a move towards greater uniformity in the way depreciation was accounted for.

As far as capital investment decisions were concerned, the chapter finds that it was the responsibility of the engineer to manage these works and to provide the initial accounting data such as estimations and costing data. Where possible, the background and role of the River Tyne's engineers is examined in this chapter, with some of the detail included in the footnotes. For the larger rivers in the 19<sup>th</sup> century, undertaking important projects often meant that a consultant engineer was involved, such as the



eminent Messrs. Rennie,<sup>1</sup> Stephenson,<sup>2</sup> Armstrong,<sup>3</sup> Brunel<sup>4</sup> and Walker.<sup>5</sup> In some cases, the river-authorities – generally town corporations at the start of the 19<sup>th</sup> century and harbour authorities towards the end – employed their own full-time resident engineers. The Tyne was no exception, and some of the resident engineer's responsibilities can be found by looking at NTCP and TIC minutes. Others can be inferred from the types of report they prepared. It was often the case that the engineer was the originator of many accounting reports, producing costings and estimates that were then used by the TIC's accountant in his reports. Original estimates by the engineers were often significantly less than actual cost, and so were heavily criticised. The engineers, in response, justified the differences through ex post analysis of how the works had been extended beyond the original plan, and so further costs had been incurred. It was also found that the works executed under the immediate direction of the TIC's own engineers to be 'better, cheaper, and more expeditiously done than when let to contractors' [NTCP, 1875, p.349], enabling the authority to secure the greatest efficiency at the least expenditure of public money.

### **Political wrangling: Coble Dene Dock, a case study**

The TIC was involved in many capital projects each of which had to be accounted for. One significant capital project for improving the Tyne was the construction of a new dock at Coble Dene situated within a large natural hollow on the north bank of the river on the Tyne at North Shields. The project proved to be a problem for the TIC for many years, with strong opposition to the project coming from Newcastle

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<sup>1</sup> Sir John Rennie, 1794-1874, civil and railway engineer

<sup>2</sup> Robert Stephenson, 1803-1859, civil engineer, son of George Stephenson, railway and locomotive engineer

<sup>3</sup> William Armstrong, 1810-1900, industrialist and engineer, invented the hydraulic engine and crane.

<sup>4</sup> Isambard Kingdom Brunel, 1806-1859, design engineer of rail and bridges

<sup>5</sup> James Walker, 1781-1862, civil engineer and chief engineer of Trinity House, hence a considerable involvement with coastal engineering



Corporation. This, together with the lack of available funds, were constant hurdles. The latter was seen in Chapter 4.

Soon after the TIC had taken control of the River Tyne's affairs, many traders felt that there was a pressing need for a new dock to be created. A deputation, made up of members from the steam coal-trade and railways, argued that a new dock was necessary to manage the ever increasing trade. Significantly, the accounting records of the TIC fuelled the case for a new dock, showing that trade was on the increase as reflected in the increased income generated by the existing dock:

The income of the Northumberland Dock [a recently established dock] had not been such as to justify them [to build a new dock] but now they had a statement of accounts which might possibly induce them to reconsider the question ... Something must be done or the trade would leave the Tyne [NTCP, 1853, p.xv].

Two dock sites were proposed, one at Low Lights and the other at Coble Dene. The construction proposal at Low Lights was backed by the deputation as it was felt that the position of the dock was more favourable.

The TIC understood the need for a new dock but initially contested the deputation by using their accounts to show that they did not have enough revenue to venture into such a capital project. 'They could not see their way to sufficient revenue, to justify them in carrying out the construction work' [ibid].

From the gross revenue and surplus revenue reported at the time, it is easy to see how the accounts of the TIC could be used to promote and contest the viability of constructing a new dock. Those in favour of the dock would see an increasing gross revenue and surplus revenue, as presented in the table below. On the other-side, the TIC would have more accounting information at hand about how much was needed to start such a project and what current expenses had to be paid from the surplus and so at this time they deemed their current position as not strong enough to venture.



Year	Gross Revenue Receipts	Surplus Revenue
1851	15470	9452
1852	23138	13830
1853	30413	20152

However, as trade was increasing, the demand for another dock increased and by 1858 gross revenue receipts were in excess of £50,000 and increasing year by year:

in the years 1859 and 1860 the Commissioners were importuned by memorials and representations from the coal trade, merchants, and captains from vessels belonging to London and Newcastle, town councils shipowners societies, the Blyth and Tyne Railway Company [Guthrie, 1880, p.171].

This time the TIC gave their full backing to the project, and with Ure, the new TIC engineer, drawing up the plans in his influential first report on the improvement requirements of the Tyne, a Bill was submitted to Parliament for increased borrowing powers for improvement works on the Tyne. The Low Lights project was authorised by the Act of Parliament, 1861 securing £600,000 in borrowing powers. The TIC

thereupon communicated again with all the interests to be benefited, with a view to obtaining guarantees of traffic. Sufficient guarantees were not forthcoming. The Tyne Improvement Act, 1865, was therefore obtained, which legalised guarantees of capital by the coalowners, the way-leave-rent owners, the Blyth and Tyne Railway Company, and the Corporations of Newcastle and Tynemouth [ibid, p.172].

However, the scheme collapsed as 'difficulties financial interfered to prevent the dock being made' [ibid, p.173], with just the foundation stone being laid in 1864 to prevent the powers obtained in the 1861 Act from lapsing.

Fears were later expressed of the safety of the constructional plans at Low Lights following the wreckage of several vessels near to where the dock was to be



constructed. Given these difficulties and the ever pressing need for a new dock, the CDD became the prime consideration for the dock promoters:

The Northumberland Dock was totally inadequate to meet the requirements of shipping in the port...the formation of a dock in the Tyne was now a matter of paramount, urgent, and immediate necessity [NTCP, 1872, p.349]

Convinced of the need for a new dock 'and believing such accommodation the only means of attracting valuable trade to the port' [Guthrie, 1880, p.174], the TIC applied to the Government for the powers gained for the Low Lights Dock to be transferred to the CDD project by proposing a new Tyne Improvement Bill. 'In this they were supported by the almost unanimous voice of the district' [ibid]. However, the voice of the supporters did not include the Newcastle Corporation, which remained adamantly against the building of a new dock. The Corporation's case is examined below in which published accounts were used as the basis of its argument. After setting out the Newcastle Corporation's case, the response of the TIC follows.

When discussing the proposed Tyne Improvement Bill, which primarily dealt with the consolidation of funds and the formation of the Coble Dene Dock, it was said at the time that it was 'one of the most important reports ever presented to that Council, affecting the future interests and prosperity of the river Tyne' [NTCP, 1872, p.159]. Newcastle Corporation was concerned that with the proposed consolidation of borrowing powers the CDD would be partly constructed out of river funds, and that the trade of the River would suffer: 'If this dock should turn out to be an unprofitable speculation, the whole burthen of the loss must be borne by the entire trade of the district' [ibid, p.161].

The issue of using the river funds for dock works had always prompted strong debate from the inception of the TIC:

No precedent could be found in which river dues were pledged as a



security for the construction of a dock not only so but Parliament ordained that dock trusts and river trusts should be kept quite separate [NTCP, 1851, p.viii].

‘River funds were to be used strictly for river purposes and not to be used for dock works’ [NTCP, 1853, p.xv]. The TIC found that ‘it was a very serious disadvantage that the Commissioners were not allowed to pledge the revenues of the river’ [NTCP, 1856, p.lxxi]. When proposing plans for a new dock in 1870, the TIC suggested that some of the river funds should be used to aid the dock works. It was felt that a lot of the revenue from the River would not have been generated had the capital works not been carried out. Therefore, it was only right that some of the benefit gained by the River should be channelled towards the capital works. As we have seen in Chapter 4, it was more often the case that the TIC had a deficit on the dock funds and a surplus on the river funds. Again, it was the Newcastle Corporation that strongly opposed the proposals:

Not one of the many docks in the Thames were formed out of river funds, Cardiff Docks, Southampton Docks, Sunderland Docks, Seaham Docks, Hartlepool Docks, Hull Docks, were none of them so provided ... There has been one unbroken and consistent system pursued with respect to docks...and Parliament has invariably, expressly, and most carefully protected the river dues from any responsibility for such speculation NTCP, [1870, pp.163-5].

Similarly, in 1872 when the TIC was proposing the new Bill, Newcastle Corporation again made its opinions known on the matter:

It was the duty of that Council, at all hazards, to protect the ratepayers generally of Newcastle, and to see that no other source of revenue should be applied towards making that dock but the dock fund itself, [Ibid, 1872, p.352].

Another concern that the Newcastle Corporation voiced related to the cost of building the docks. By looking at the TIC’s accounts, the Corporation maintained that the TIC did not have the means to meet the proposed expenditure:

It is obvious that more than one million and a half is proposed to be



expended, and it is certain that neither the past accounts of the Commissioners nor the pending bill show any means whatever of meeting such an expenditure [ibid, p.162].

The Corporation argued that if the bill were successful further applications to Parliament would result 'for the completion of the docks, and heavy, excessive, and increased taxation on the commerce of the river must inevitably be imposed' [ibid]. Newcastle Corporation furthered their argument by using the accounting information that was generated by the Commissioners, and heavily criticised it on two counts: firstly, for the wide variances between the estimated and actual costs of works that were still ongoing, and ultimately still incurring costs; and secondly, for the lack of accounting information available regarding estimated future revenue streams and returns for the proposed CDD project, given that it involved such a large expenditure:

Notwithstanding the magnitude of these figures [the £1.5m], it must also be remembered that they only form an estimate. The experience of estimates of the Commissioners, as compared with expenditure is anything but favourable. The original estimate for the piers was £180,000, the borrowing powers for the piers are now £600,000 ... the revised and increased estimate for the Newcastle Bridge was £55,000; the cost up to the end of 1870 was £114, 291 10s. 9d; what it will amount to in the end it is difficult to say, but certainly not to less than five times the amount of the estimate. The estimate for the works at Bill Point was £30000; the cost up to the end of 1870 was £43, 569 0s. 8D; what it will reach ultimately it is impossible even to conjecture, considering the small progress yet made, but five times the original estimate will certainly be inadequate to cover it [ibid].

By looking ex-post at the original estimates relating to these projects, and considering what had actually been expended and what still needed to be spent, Newcastle Corporation demonstrated a poor track-record on the part of the TIC in meeting its budgets. Thus, the Corporation voiced a strong concern that even with the original estimate from the Engineer for the CDD set as high as around £1m, the final cost was likely to end up much more given past experience:

On referring to the report and estimate of the Engineer, on whose authority alone the proposed dock is projected, it will be found not to



contain one single word as to the revenue which it is thought may be derived from them [and yet they are willing to spend at least £1m] ...without having had before them the slightest information on this subject...the absence of full and satisfactory explanations of the intended application of the money [was an issue] [ibid, pp.162-63]

Clearly, Newcastle Corporation was concerned that the TIC was about to spend a significant amount of money without having sufficient information regarding the benefits that the CDD would generate. Furthermore, using the TIC's accounts, the Corporation expressed concern that the interest charge alone on the amount proposed to be borrowed would be more than what was being spent on all current improvement works:

The commerce of the town...cannot bear the crushing weight of a debt of upwards of four millions sterling, involving a yearly taxation of £200,000 merely to meet the interest alone. To this £200,000 must be added the sum appearing in the Commissioners accounts as their annual ordinary expenditure on revenue account, and which necessarily increases every year, amounting to £28,377 during 1870; the result is, that £228,377 must be raised yearly by taxation; and that when this sum has been raised, it is wholly absorbed in the payment of interest and of ordinary revenue expenditure, leaving the cost of all other works to be otherwise provided for in addition [ibid, p.163].

Finally, by using the trade statistics presented in the TIC's accounts, it was demonstrated by the Newcastle Corporation that 'the proposed Coble Dene Dock would have no coal traffic to augment its revenue' [ibid]. Newcastle Corporation quoted some figures for the tonnage cleared outwards from the Tyne during 1870 and concluded that 'these figures clearly show that the great majority of vessels frequenting the Tyne are of too small a tonnage to be benefited by the works proposed' [ibid]. It was alleged that the TIC had acted with, 'unlimited extravagance of expenditure ... and general recklessness of procedure in river matters,' and to borrow more would be 'even more reckless' [ibid, p.xxxix].

The TIC contested these allegations by using their accounting information to argue that the Corporation was exaggerating and misinterpreting the data:



The report contains many statements that are altogether incorrect, and others that are greatly exaggerated, some of the allegations made, while technically correct, in the absence of proper explanation convey an entirely erroneous meaning; and conclusions are drawn from these incorrect exaggerated statements that are as fallacious as the statements themselves are false [ibid, p.197].

For example, the large variances between the original estimates and the actual costs were justified on the grounds that the originally proposed works had expanded and therefore cost more: 'The cost of the works has necessarily risen with their dimensions and extent' [ibid, p.198]. In addition to this, the accuracy of the figures quoted by the Newcastle Corporation in their arguments was questioned. For example, when looking at the estimate of the piers works, Newcastle Corporation had quoted £180,000 as the original estimate: 'How these figures have been obtained, I cannot conceive ... [the] original estimate for the Piers was £400,000' [ibid, p.203]. The initial estimate was done on the basis that the piers would extend into 15 feet water, but given its success, it was then proposed to carry them out into 30 feet water; hence, the necessity to go to Parliament for an additional £400,000 as the work to be carried out had doubled from the original estimate. The TIC did not see any further costs being incurred, and maintained that 'there is every likelihood that the Tyne Piers will be completed within, or nearly so, of the original estimate' [ibid, p.204]. Another example used to show that the original estimates were not inaccurate as the Newcastle Corporation suggested them to be, concerned the works at Bill Point: 'I don't know where Mr Hammond got these figures' [ibid]. The original estimate was £63,000, of which £49,000 had been spent so far, and 'the purely engineering work will be finished for that sum' [ibid, p.205].

Another significant capital project was the construction of a new bridge over the Tyne. In this case, the TIC admitted that the original estimates had been 'exceeded' [ibid]. However, full justification was given in that the original plans for



the size of the bridge had increased by a third after embarking upon the works. Also, the foundations were sunk much more deeply than first planned 'and this was another and very great additional expense' [ibid]. Moreover, 'wages and material costs have increased over the time of the works' [ibid]. It was suggested that Hammond, the Newcastle Councillor responsible for the report opposing the CDD proposal, 'had made his report in a hurry, and that accounted for the extraordinary amount of figuring that appeared on the face of that document' [ibid, p.220]. This shows how easy it was for accounting information to be interpreted in a negative way, by mistakenly quoting the wrong figures from the accounts, and by quoting figures without due consideration for the explanations of the variances shown. The TIC was thus able to justify its position and belittle Hammond's findings by interpreting their accounts with full explanation and with greater accuracy.

When looking at the issue of river funds being used for dock purposes, the TIC clearly stated that this was not their intention, and that they understood that the legislation prescribed that 'the river funds are strictly for river purposes, and the Commissioners are wisely prohibited from diverting them to any sectional object whatever' [ibid, p.216]. Indeed, the TIC strengthened its case by showing the state of the trade on the Tyne and the desperate need for a new dock in order to prevent it declining:

Vessels were coming into the port, and it was sometimes three months before they could get quit of their cargoes; and that was because of the want of dock accommodation in order to enable them to discharge their cargoes [ibid, p.221].

With these arguments in mind, the Newcastle Corporation agreed that if the TIC would state in the proposed Tyne Improvement Bill, that 'if money was borrowed for the Coble Dene Dock, the security for the same should come out of the Dock Fund', it would not oppose the Bill any further. The TIC acceded and the Bill was accepted



by Parliament resulting in the 1872 Tyne Improvement Act for which:

the borrowing powers, amounting to £600,000 which had been previously obtained for the Low Lights Dock, were by the Bill transferred to the Coble Dene Dock, and no additional capital was required to be authorised for the purpose. Like the scheme at the Low Lights, the capital of the intended dock was to form part of the Northumberland Dock Fund [Guthrie, 1880, p.176].

It was admitted by the Newcastle Corporation that perhaps they could not have opposed the bill in any case, presumably because of the high costs involved, resulting in the loss of public money: 'With the law in its present state, we cannot retain counsel to oppose this bill' [NTCP, 1872, p.192]. However, the legal position was unclear. Work did start on the CDD but the project was heavily criticised from start to finish, especially, as we have seen, by the Newcastle Corporation who saw it as a waste of tax payers' money. Despite all the opposition, the CDD was finally completed in 1884 and renamed the Albert Edward Dock. However, 'it was to be a moderate success' only [Manders and Potts, 1999, p.47]. It took over 30 years to create the dock, and so its original necessity was not so great given the change that had occurred in trading vessels from sail to steam. Steam vessels did not require as much time in the docks; and as they could carry more cargo, there was also a great reduction in the volume of traffic using the docks.

Even upon completion, the legacy of the dock was still to hamper the TIC when applying for increased borrowing powers for other improvement works. It was contended that the TIC had used creative accounting to hide the excessive expenditure on the CDD, fuelling the case of those who opposed further increases in the TIC's borrowing powers. The opposition illustrated this by using the 'report of the Commissioners for last year [1884]', which showed that expenditure on the docks so far to be:

as near as possible £200,000 beyond the estimate Mr Messant gave to



the Commissioners in 1877. In the accounts for last year, for the purpose of showing the amount to be as small as possible, the Commissioners deducted £95,699 19s 3d. for interest which was charged to the revenue account. How this sum was subsequently dealt with he would have to ask some member of the Commission to explain [NTCP 1885, p.414].

The excess expenditure was highlighted by the opposition using data from the TIC's published accounts. The way it was presented and the interest dealt with in the accounts was criticised:

The gross balance standing to the debt of the Northumberland Dock Fund, which included the Coble Dene Dock, at the end of 1884, was £1,274,274 4s 5d. whilst the extent of borrowing powers for dock purposes was £1,250,000 so that the Commissioner had up to the end of 1884 overspend for dock purposes £24,274 4s. 5d. in addition to the mysteriously removed item of £95,699 19s 3d making together in round numbers an over expenditure of £120,000 on the Coble Dene Dock up to the end of 1884. His reason for now adding the £95,699 to the £24,274 was that the Commissioners had power to charge, and ought to have charged, the interest to capital account during the construction of the dock down to July, 1884 [Ibid].

Similarly, Youll, the Newcastle Councillor speaking in opposition to the proposed increase in borrowing powers, used the accounting information of the TIC to show that if the Commissioners had to go to Parliament at all it would be in consequence of their 'wasteful expenditure' upon the CDD:

Last year, notwithstanding the difficulties they were drifting into, the capital expenditure of the Commissioners on the Dock Fund, including the deficiency of revenue was £76,062 3s 3d. Prior to the Commissioners obtaining their Act of 1872 the Northumberland Dock showed a surplus revenue over expenditure of something like £9,000 but in consequence of the interest on the cost of the making of Coble Dene Dock being charged to the fund, the surplus gradually decreased, and was followed by a deficiency and the deficiency in 1884 was £15,549 7s 9d [ibid p.415].

[The TIC had] spent nearly £900,000 upon the dock; and when would it bring in any return? ... He was certain that some years must pass before there was sufficient trade to enable the dock to pay any portion of the interest upon the capital expended [ibid].

This can also be demonstrated by looking at the acute fall off of



surplus revenue from 1883-1887, only starting to recover again in 1888.

Year	Surplus Revenue
1883	42591
1884	39634
1885	24501
1886	16867
1887	433
1888	28783

**Separating capital and revenue expenditure and the question of depreciation**

One cannot look at capital accounting in the 19<sup>th</sup> century without looking at the topic of depreciation. Depreciation held the directors of private companies to account in the annual report to shareholders for their consumption of fixed assets and had a direct bearing on reported profit. Depreciation was not an accounting practice that was required by law in the 19<sup>th</sup> century, but was used voluntarily by some companies. Brief [1965, p.14] commented that one of the most significant accounting errors of the 19<sup>th</sup> century was ‘the failure to systematically distinguish between capital and revenue expenditure and the failure to periodically allocate the cost of fixed assets to expense’. He suggested that accounting practice was ‘flexible’ in that

depreciation provisions may or may not be made; past provisions for depreciation may be restored to profit; and assets may be revalued to provide ‘profit’ out of which dividends are made [ibid, p.27].

However, in recent years these comments have been criticised for underestimating the ability of the accounts’ preparers, who, it has been suggested, did indeed understand the accounting techniques involved, and were more than capable of manipulating the accounts to their advantage. For example, Pitts [2001, p.42] states that



many nineteenth century coal, iron and steel directors understood very clearly the difference between capital and revenue expenditure and the need to reduce the value of wasting long term assets over their lifetime. It is however true that their published accounts did not make this clear to the investing public and other interested parties.

Pitts suggested possible reasons as to why the consumption of assets was obscured from shareholders and potential investors; and why, given that charging depreciation was not a convention at the time, it could be used opportunistically. There was, for example, a

fear of revealing important information to competitors ... fear of shareholders' demands for big dividends rather than prudent accounts – or a combination of these and others. There was also the temptation to omit making provisions for depreciation in poor years to present the shareholders with higher profits and to be able to pay dividends and to keep this decision private [ibid].

Carlton and Morris [2003, p.275] found in their study of 150 British unregulated companies from the years 1880/81, 1889/90 and 1899/01 that

whether depreciation was *charged* is related to profitability and, to a lesser extent, to the presence of outside shareholders, long-term debt holders and the appointment of a professional auditor. However, the *amount* of depreciation charges is related only to profitability and appears to be opportunistically determined.

Depreciation policies were much less consistently applied than other accounting policies, particularly for companies in financial difficulty. It was more often the case that trading surpluses were distributed as dividends rather than retained as depreciation or revenue reserves; and so depreciation was not a widely practised form of accounting in the 19<sup>th</sup> century. Rather than use depreciation, companies often wrote amounts off to the capital account for their own advantage, for example to debit revenue with expenditure on works and additions to works and plant instead of charging them to the capital account, a procedure they were open about. Moreover, there was no legislation or consensus at the time regarding the need to charge depreciation. Indeed, 'the view that depreciation by law need not be charged in fixed



assets was firmly established' [Morris, 1986, p.71].

Edwards [1976] has suggested that the adoption of depreciation may have been inhibited by the re-introduction of Income Tax Law in 1842 after a break of 26 years:

Until 1878, no deduction from profits was allowed under the legislation, although local Commissioners varied in their approach, and some did in fact allow deprecation as an expense. Others did not, but took a liberal view of what could be treated as repairs and maintenance, thus encouraging replacement accounting. And if the Commissioner insisted on a strict interpretation of the statute then the desired objective could be achieved provided the accounting information was presented in an appropriate manner [pp.206-7].

Indeed, Edwards [1986, p.258] argues in a later paper looking at the use of depreciation within the railways in the 19<sup>th</sup> century, that 'the tax position provided far more obvious support for the systems of repairs and renewals accounting and replacement accounting which eventually became dominant'.

We now examine the issue of depreciation, firstly with respect to the TIC and then shipping companies in general. Within the TIC, the only evidence of the term 'depreciation' found by the study was in correspondence regarding taxation relief relating to the latter stages of the 19<sup>th</sup> century. Depreciation was not shown in any TIC accounts. However, an amount for depreciation was allowed by the Income Tax Authorities on plant and craft, but never accounted for by the TIC. A letter from Mr Chapman (auditor to the TIC) to the TIC secretary in 1903 shows that depreciation has not been accounted for by that body. However, there was an allowance given to the TIC by the Income Tax Authorities in their first application in 1887, whereby they agreed that £20,000 was to allowed for depreciation; after which a further application was made in 1891 for an increase in the allowance to £26,435. This time the TIC was unsuccessful, and instead the allowance was reduced to £15,000:

No depreciation account has ever been opened in the Commissioners'



books, and no annual charge has ever been made against Revenue for that purpose. On the other hand for the last 16 years an amount for depreciation has been allowed by the Income Tax Authorities in making their Assessments...In the year 1887 I applied to the Surveyor of Taxes for an allowance from the yearly assessment in respect of depreciation of the plant &c of the Commissioners, and after some correspondence succeeded in obtaining an allowance of £20,000 per annum, which was deducted from the amount of the assessment for the years ending 5th April 1888, 1889, 1890 and 1891 respectively. In 1891 I sent into the then Surveyor of Taxes a claim for an increased allowance of £26,435, which was objected to. I therefore appealed on behalf of the Commissioners against the assessment for the year ending 5th April, 1892, and subsequently appeared before the Local Income Tax Commissioners with the result that they disallowed certain items included in the original amount of £20,000 and offered, in order to settle the matter and to avoid going into figures and re-making calculations every year, to allow the sum of £15,000 for depreciation. It was at the same time arranged that the Surveyor of Taxes should be furnished by the Commissioners each year with a statement of any new plant charged to revenue account to replace old plant. The Finance Committee approved and confirmed what had been done on 25th February 1892. Since that time the reduced allowance of £15,000 has been made off the gross assessment each year. These allowances from 1888 to the present time represent a total of £260,000 and an aggregate saving to the Commissioners of £8,750 [Chapman 1903a, p.2].

The purpose of Chapman's letter was twofold, firstly to ask the TIC to apply for an increase in the allowance given by the Income Tax Commissioners, and secondly to question the accounting procedures adopted by the TIC for charges for maintenance, renewals and replacements. On the first point, the TIC was advised by their accountant, Mr Ormond, not to disturb the current arrangement:

I find appealing against the Local Surveyors, supported by the London Commissioners, are, in recent years, much more strenuous in their opposition to all depreciation, the Law in its definition of what is depreciation being obscure [Ormond, 1903, p.4]

On the second, there was disagreement over the distinction between improvements and maintenance expenditure and repairs, which is still relevant in modern tax law:

Mr Chapman contends that the amount of the surplus revenue shewn in the accounts for last year 'is incorrectly stated as charges for maintenance, renewals and replacements, which should have been charged against revenue, have been entered as Capital Expenditure'



[Urwin, 1903, p.6].

This example shows that categorising depreciation was problematic and subjective. In this case, not even the professional accountants could come to an agreement; thus indicating a lack of available guidance at the time.

In response to Chapman, Urwin, the TIC Secretary, stated that in his judgement, ‘additions to plant [and] ... expenditure representing new and additional works have been ... correctly so treated’. Perhaps quoting from tax law, he continued:

I notice that Mr Chapman seriously contends that the sum of £54,339 8s 0d for North Pier re-construction should, in whole or in part, be written off to Depreciation. This sum forms part of an increase of debt of £488,000 under the 1898 [TI] Act and it is surely too absurd to argue that you acquired this Borrowing Power to write off the expenditure to Depreciation ... the North Pier Work is not either ‘in whole or in greater part a replacement’ and has been properly treated by the Commissioners as a new and additional work [ibid].

The letter continues with a discussion of the effects of depreciation within railway companies; again as we have seen on many occasions, the comparative used was with rail and not other harbour authorities. The comment below clearly shows an awareness of the alternative practice of charging capital expenditure to revenue as it was incurred in order to reduce taxable profits. Unsurprisingly, the Income Tax Authorities were not in favour of this:

Supposing the Commissioners could afford to do what some dividend paying Railway Companies do from motives of policy, and not because it is in conformity with strict laws of apportionment between revenue and capital, and were to debit revenue with expenditure in respect of certain extensions of or additions to their works and plant, which is unquestionably properly chargeable to capital account, it does not follow by any means that the Inland Revenue Authorities would accept the result ‘for Income Tax purposes’.

Chapman responded to Urwin’s letter stating that:

With regard to the item of £54,339 for North Pier re-construction, I have not altered my opinion that this is a replacement, and, as such, should be charged against revenue, the expenditure having been incurred by reason of the destruction of former works, and that if



proper representations were made to the Income Tax Commissioners relief would be obtained in respect thereof.

So far as the accounts of the Commission are concerned, the large surplus revenue shewn in the annual accounts, and amounting in the aggregate to £1,726,827, have been applied towards reducing the amount of expenditure charge to capital account, but the nett result of the capital account would have been the same if more had been charged direct to revenue account for renewal and replacements, instead of being charged to capital and then written off against the surplus revenue, as both the gross capital expenditure and the surplus revenue would have been reduced by the same amount [Chapman, 1903b, p.2].

Ultimately, given the awareness of the beneficial ‘use’ of writing off capital to revenue allied to the choice not to charge depreciation, one can only conclude that the TIC perhaps did not wish to reduce reported profits in this way as they needed to attract loans, and the balance sheet would look better without it.

The lack of uniformity in practice was the same for shipping companies. The research here focuses on a series of articles written in *The Accountant* by Daly, [1899-1900]. In the first of these he writes:

There can be no doubt that when the assets of a company are depreciating such depreciation should be dealt with in the accounts’ [*The Accountant*, 1899, p.23].

He clearly shows that the way depreciation was dealt with differed from company to company:

The question of depreciation in a single ship company one on which opinions have always differed; and I presume many shareholders will always continue to hold the opinion that all profits should be divided, and that each shareholder should make such provision for depreciation as he thinks fit in his own private accounts [ibid, 1900, p.1147].

Daly argues that this position taken was acceptable in the early days of shipping:

This view of the matter was not unreasonable in the early days of these companies when, in very many cases, the company was formed with the single object of purchasing and working some particular ship, the company being wound up when the ship was lost or sold, and the money received from the underwriters or the purchaser divided among the shareholders.



However, now that the way shipping was accounted for had changed, he argues that it was perhaps time that a consistent method of accounting for depreciation be introduced:

But now the articles of so many of these companies provide that the company shall become continuous by the purchase of another vessel should the original one be lost or sold, and so on, apparently ad infinitum, that a very different state of affairs has to be faced.

For the last few years the value of shipping, especially of steamers, has to continually appreciated, that the sale of an old steamer very frequently shows a profit instead of a loss; or if there is a loss, it is but a trifling one, and the need for writing off depreciation has not been so apparent. But when shipping reverts, as it must some day, to the state in which it was a comparatively short time ago, the question will again become a burning one.<sup>6</sup>

Daly's predictions were correct; and the debate over depreciation as a cost or a reserve was soon to be settled. By the early 20<sup>th</sup> century the policy used by shipping companies changed: 'Ships' managers now as a rule prefer to write off depreciation, and thus endeavour to keep the ship at a fair realizable value' [Daly, 1910, p.183].

Napier [1991, p.48] adds that this

epitomises the development of the concept of depreciation during the nineteenth century, from an almost optional reserve for asset replacement to a regular (and unavoidable) measure of the cost of using fixed assets.

### **The role of the engineer**

Without the engineer, industrial England would not have been what it was. How,

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<sup>6</sup> He uses this example to illustrate: 'Suppose a single ship company purchases a steamer costing £40,000, runs her for a few years, divides all the profits, and then, finding that their steamer is being supplanted by a newer type of boat, sells her for £25,000, and purchases a second one for £40,000 borrowing whatever is necessary to pay for her; after a year or two the second steamer is also found to be unsuitable, is sold for £30,000, and a third purchased, again for £40,000, what is the position of the company? They have lost £25,000 of their capital, have had to borrow that sum to enable them to pay for their new steamer, and will have to pay interest on their borrowed capital for many years before the debt is wiped out and they are again in a position to pay a dividend; while had a reasonable depreciation been written off each year, the losses to be faced would have been comparatively small.'



They came from the only people likely to know much about tools, metals, or machinery, or about what was involved in the design of great public works like canals and roads...Stephenson [1781-1848] was a colliery workman, so ill-educated that he was almost illiterate. Many engineers came, if not from the bottom of society, then from a level far beneath the notice of the polite educated world [Reader, 1966, p.70].

Trained through apprenticeship, engineers lacked the professional status conferred by qualifications, as there were no examinations until 1898. However, numerous examples have been found in the literature of engineers carrying out a financial role as management accountants with great competence [e.g. Fleischman and Parker, 1990; Boyns and Edwards, 1996; Williams, 1999; Oldroyd, 2001]. Engineers, for example prepared colliery valuations as a matter of course from the first half of the 18<sup>th</sup> century; and were instrumental in extending discounted cash flow techniques from monetary to non-monetary resources:

The adoption of DCF is a clear case of accounting and engineering technologies combining to facilitate the exploitations of deep coal reserves where accounting acted as a determinant of industrial expansion [Brackenborough et al, 2001, pp.137-9].

However, towards the end of the 19<sup>th</sup> century, and more-so in the early part of the 20<sup>th</sup> century, the newly established professional accountants started to compete with the engineers in this field. Thus, Matthews [1998, p.72] argues that accountants were involved in early cost systems: ‘Close involvement with management accounts dates from the earliest years of the chartered accountant’s professional work.’ He quotes examples, such as one of the first jobs performed by Edwin Waterhouse being ‘planning a system of cost accounts’. According to Loft [1990, p.116],

there is evidence that consultants were installing systems for manufactures at this period [c.1880], some with an engineering background, others with an accounting one. Competition for the work appears to have existed.



Roslender [1995, p.8] emphasises the self interest that drove the professions into competition, which [Larson, 1977] regards as crucial to understanding lines of demarcation between the professions:

The professions are represented as being continuously locked into a process of competition with each other for access to the commanding positions within the managerial hierarchies of organizations. It is self-interest which motivates professions and their members, self-interest which they seek to realize by means of a collective mobility project.

Chandler and Edwards [1996, p.7] argue that ‘the engineers appear to have felt sufficiently threatened to make accountants’ activities the subject of careful scrutiny and criticism.’

As companies changed with the industrial revolution and the scale of investment in fixed assets grew at an unprecedented rate, railway companies being the prime example, the need for accurate cost accounting also increased. Demand also increased for a professionally qualified person to produce these accounts and attitudes of accountants began to change as they wanted to be involved in this niche market. From an article written in *The Accountant* it is clear that accountants were being encouraged to extend their knowledge further to include engineering financial matters such as costing.

The question will perhaps occur to you whether this is not expecting too much of Chartered Accountants – whether it does not involve that, besides being men of figures, they must also be qualified builders, engineers, ironworkers, mining engineers, woollen manufacturers and so on. This answer is no! ... We must acquire sufficient knowledge of each kind of trade to enable us to follow the processes and pick out the vital points where continued supervision of necessary. We must then adapt our knowledge of methods to the requirements of each particular trade [Gibson, 1890, p.367].

In 1901, the editor of *The Accountant* regarded knowledge of costs as ‘vital’ [*The Accountant*, 1901, p.638]. By 1914, the

elite professional accountants, the members of the ICAEW were coming to see costing as something associated with the accountancy



which they practised [Loft, 1988, p.124-5].

Cathles [*The Accountant*, 1920, p.256] shows an awareness of the benefits that would result to their professional status of taking control of this niche market:

Devising and organising of efficient costing systems ... provides for the accountant a field of opportunity which is practically virgin soil .... by taking it up seriously, accountants will raise higher the status of the profession to which they belong.

Ultimately, accountants were victorious and extended their domain into costing: 'After 1914 ... engineers had largely left the field to accountants [both groups now having more clearly defined professional roles]' [Loft, 1988, p.71-2]. According to Loft [1986, p.165], the First World War was a major factor in this transition:

The bringing of cost accountants and cost accounting 'into the light' came as a virtually unanticipated consequence of the war-time legislation passed with the intention of helping to prevent profiteering and to provide a basis for setting the prices of contracts for items for which there was no clearly identifiable market price.

'Contemporaries freely acknowledged the First World War as a major impetus to change' [Fells, 1919, p.31]. The leading article in the first issue of *The Cost Accountant* [1919, p.150] said that

the war has, of course brought good costing methods prominently under the public eye. Many manufacturers are to-day keeping Cost Accounts who hardly knew that there were such things five years ago.

Whether the supplanting of engineers with professional cost accountants was quite as straightforward as this is still open to debate. However, as far as the TIC was concerned, these changes were for the future. It was the river engineers rather than professional accountants who dominated the costing of the great capital improvement projects of the TIC described in this thesis.

As we have seen in Chapter 5, a major internal investigation into the TIC's operations was carried out in 1880, the year of Guthrie's death. A lot can be learnt



about the role and duties of the TIC's engineers from that report, and it illustrates the breadth of their accounting role. What is clear is that engineers had to create financial reports and examine financial data, keep financial records and act upon the information they produced. The main financial related duties of the chief clerk in the engineer's office included the:

making up pay sheets ... making up Engineers summary sheets for Tyne Improvement and Northumberland Dock Funds...examining the whole of the fortnightly pay bills and submitting them to Mr Messant for examination and certification...examining accounts for all materials bought; seeing that prices agree with those of tender, presenting accounts to Engineer to be certified at the proper times, and handing them over to the secretary's office for payment...making up yearly statements required by secretary as to expenditure of various works, keeping cost of all private dredging or other work done for outside firms, and making out and handing to secretary department accounts for cost of such works rendering accounts for all dredgers or other vessels or plant let out on hire also for damage done to any of our crafts or works...[Report of Investigation Committee, 1880, pp.13-14].

As it will be seen, most of the Tyne engineers were educated men and had come from an apprentice background with some of the major engineering names of the time. There were two types of engineer on the Tyne, firstly the resident engineer whose main employment derived from the TIC. The other type was a consultant engineer whom the TIC engaged on a fee basis. What was seen on the Tyne, and in general at ports in England, was that the local authorities often consulted engineers from outside their authority when looking at significant capital works. Therefore, the consultant engineer dominated the works he proposed and the resident engineer merely assisted. There is no explicit statement in the minutes examined as to why this was the case, but presumably it was because the more eminent consultant engineers had more experience and competence than the local engineers.

As we have seen in the early years of the 19<sup>th</sup> century, the Newcastle Corporation had a tendency to spend on eminent consultant engineers' reports only to



shelve them when the cost of improving works were glaringly too high. An example was Rennie's<sup>7</sup> report as to the best mode of improving the River Tyne and its navigation:

With respect to the expense, it is no easy matter to be correct in a work of this nature and extent; I have, however, endeavoured to make out an estimate as near as I can, amounting to £519,320 [1816: p.10].

As a result of this estimate, very little was done with Rennie's report and so the River remained in an unimproved state.

Upon the establishment of the TIC in 1850, the TIC inherited the Corporation's local engineer, Mr. Brooks.<sup>8</sup> Towards the end of the Corporation's period of control of the Tyne, there had been growing antagonism between Brooks and Newcastle Corporation. His conduct was viewed as unprofessional and he was regarded with mistrust by council members. Brooks refused to work with any consultant engineer employed and continued with his own plans of how he saw fit to improve the Tyne. Brooks was more than happy with the work he was carrying out. However, in the 1850 Admiralty Inquiry, Brooks was criticised as having produced 'an ill-digested scheme of river works ... [with] the object of making the river a better ship canal to Newcastle'. This mistrust continued when the TIC took charge of the river affairs, and the majority of the Commissioners became rapidly dissatisfied with his ability and wanted him removing from his position. The published accounts were used to show that he had mismanaged the Tyne, spending money where it was not needed. Removing him was deemed necessary for 'securing its funds from the many unnecessary expenses' [NTCP, 1858, p.1]. Brooks was also accused of thwarting vital

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<sup>7</sup>John Rennie, a Scotsman, worked in Andrew Meikle's engineering works from the early age of 12. He went to Edinburgh university and studied agricultural land improvement. After university he began a career in engineering and was employed by Boulton & Watt for 5 years then after he started his own engineering company.

<sup>8</sup>Little background information could be found for Brooks. Previously engineer to the Tees Navigation Company. One would conjecture that he was a local man and perhaps not university educated instead growing up through the apprentice ranks.



improvement plans by stating that there were not enough funds available to carry out the works.

Increasingly, consultant engineers were used to report upon the River such as James Walker and John Murray<sup>9</sup> who were called upon to report on the River in 1844 and 1845 respectively. Brooks failed to work cooperatively with James Walker, the Admiralty inspector, and this was seen as unprofessional behaviour. 'The Admiralty stated that its powers were limited only to the approval or rejection of plans submitted', and in 1855 Brooks produced plans that were not approved by Walker.

The Admiralty expressed extreme displeasure and the TIC censured Brooks, instructing that he and Walker must work in unison. The TIC reminded the Admiralty that Walker's duties were legally confined to the approval of plans but, regardless, the TIC would be pleased to avail itself of his services; in May 1855 Walker was formally appointed consulting engineer for the construction of the piers with Brooks supervising work and preparing the necessary drawings [Rennison, 1990, p.132].

Finally, in 1858 Brooks was criticised for his 'liberal' salary and the costs of using 'other engineers' for work that 'ought to have been executed by the Engineer of the Commission and that large expenditure of money thereby saved' [NTCP, 1858, p.1]. It was proposed that a new resident engineer should be appointed by the TIC, someone who was

practical and capable of performing such duties, giving energy and uniformity to all operations of the River, and thereby securing its funds from the many and unnecessary expenses that injure and cripple its resources [and] Brooks, be relieved from his services [ibid].

His replacement was John Ure<sup>10</sup>, who had vast experience of engineering on the River

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<sup>9</sup> 'A bold and skillful engineer.' [Miller, 1982, p.102].

<sup>10</sup> Educated mainly in Cumberland, Ure started work aged 15 in the Glasgow marine engineering works of Robert Napier. Ure moved into land surveying before, in 1839, becoming chief assistant to Andrew Thomson, a leading civil engineer. He then attended Glasgow University studying Civil Engineering and Applied Mechanics before working, from 1845, with J M Rendel of London. In 1852 he was appointed resident engineer to the Clyde Navigation and Harbour of Glasgow then finally was appointed the TIC engineer in 1858. He withdrew his active service in 1869 when his sister who married John Elder (Robert Napier's works manager) invited him to become senior partner in the company after her husband's death. He thus went back to marine engineering, resigned his position as resident engineer of the Tyne but agreed to stay on as consultant engineer until ill health 9 years later



Clyde. He had a 'clear, practicable nature and at once created confidence' [Guthrie, 1880, p.133].

In general, works were executed on the Tyne almost entirely by direct labour, not by contractors, and the harbour engineers supervised this labour force, sending in regular returns of expenditure to the Commissioners which required some accounting ability and knowledge. For example,

Mr Stevenson moved that the report of the Committee of Accounts as to the cost of dredging be received, and that the Engineer be directed to prepare estimates of the working expenses and materials for dredging [NTCP, 1852, p.107].

Another example showing the type of accounting information demanded of the engineer, perhaps provoked by Brooks's incompetence, is illustrated in a letter to the TIC from W.S. Lindsay, MP and shipowner, in 1854:

Mr Brooks the engineer, should be called upon to furnish an account in detail, setting forth all the works executed by him since November 1850; the situation of those works; *the cost of each; besides a note of the whole expenditure under his direction since 1850 till the present date* (Italics my own).

This proposal resulted in a monitoring of projects which was to continue in future months and years:

... that at every ordinary monthly meeting of the Commissioners the engineer do produce a return showing what river works are in course of execution, the point of their progress, and the expenses incurred thereon [NTCP, 1855, p.xxiii].

So, it can be seen that it became a requirement that cost and expense accounts were to be kept retrospectively as well as the typical engineering plans and estimates produced ex ante.

Ure, the much respected TIC engineer from 1860, shows awareness of accounting and uses financial estimates in his influential 1860 report on how to

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meant that his activity was very limited.



improve the River Tyne:

The expense of the Works now recommended, which will take about four years to complete, I estimate will be nearly as follows:-

1. Three new Dredging Machines with the requisite plants to work them, to be made of a construction such as the working of the present machinery will show to be most suitable say about	£100,000
2. Repairing yard, including Slip &c., say about	10,000
3. Taking down and rebuilding Newcastle Town Bridge with opening spans, including temporary Bridge, as per Parliamentary estimate, including 10 per cent Contingencies	55,000
4. Removing Bill Point do	63,000
5. Friar's Goose do	20,800
6. Land compensation for items 3, 4, 5, do	29,000
7. Constructing River Walls, say	6, 000
8. Dredging expenses during these four years will average about £30,000 per annum	120,000
	403, 800

This will involve an annual expenditure of about £100,000 for four years, and therefore for working the proposed and the existing dredging machinery about £40,000 per annum ... [Extracts from Ure's report<sup>11</sup>, 1860, pp.1-3].

As well as costing the projects ex ante, Ure also provided calculations regarding the funding of the projects by using the financial statements of the TIC to justify his report, showing the importance of accounting records:

I have considered whether the resources of the Commission are equal to this expenditure, and it appears to me they are ample. The free revenue from the Tyne Improvement Fund is expected, as per Report of Committee of 12<sup>th</sup> December, 1860 to be £27,000 per annum. The works now project will cost about £400,000 and taking into account the expenditure of the surplus revenue, there would be a debt on this fund, under the Act of this year, when the Works now projected are completed, of about £300,000 with a surplus revenue of from £15,000 to £20,000 per annum, yearly increasing, a dredging plant with repairing shops worth nearly £200,000 and unexhausted borrowing powers to the extent of about £200,000 [ibid].

His report was an important element in securing the 1861 Tyne Improvement Act, which was vital as the Tyne was at

<sup>11</sup>Report of John F Ure, engineer to the TIC on the general plan of improvement of the River Tyne. 1860.



its very lowest point of decadence as a navigable river ... relatively to the trade carried on, and to its position as regards neighbouring rivers, it was at its very worst,' Guthrie [1880, p.122].

The Act was to amend the acts relating to the River Tyne and to enable the TIC to construct docks and other works and to make certain alterations in rates charged.

In 1865, the TIC went to Parliament to ask for further borrowing powers. Again, the engineer's report was vital. However, comments suggest that the financial details were dealt with separately by the Dredging and River Works Committee [herein DRWC] and not by Ure as was the case in 1861. Ure submitted his report to Parliament for plans of improvement and 'at the same time they submitted to parliament a well considered scheme of finance of providing the necessary means' [Report of the DRWC, 1865]. However, the engineer continued to prepare estimates that were relied upon and used by the financial committee of the TIC. For example,

Mr Guthrie laid before the meeting a full statement of the Commissioners' accounts for the year 1868 ... The committee examined the statements and considered the subject of revenue and expenditure for the current year, and conferred with the engineers relative to the amounts desirable to be expended on new works and improvements during 1869 [NTCP, 1869, p.xxv].

No explicit examples of comparing budget to actual could be found in the evidence available. However, the discussions in the NTCP minutes confirm that such comparisons took place, as was seen in the previous chapter when looking at the Coble Dene Dock. Ure was a very successful engineer on the Tyne. However, he was not immune to criticism and the following comment shows that perhaps engineers, however successful they were practically, lacked financial ability. When discussing the early estimates of Ure and comparing them to the actual much higher amounts, one councillor commented that:

They [TIC] were guided, in a great measure, by one of the most excellent and eminent engineers who lived in this country, but he had, one great fault – he looked at matters too much in the engineering



light, and not sufficiently in the financial [NTCP, 1872, p.215].

These findings add to the debate in the current literature regarding the financial role of the engineer within organisations prior to the 20<sup>th</sup> century.



## **Chapter 7: Conclusion**

This thesis has examined the function and development of accounting data for the River Tyne in the 19<sup>th</sup> century against a backdrop of major economic, technical, political, social and organisational change. The function and development of accounting data specifically for the River Tyne has almost entirely been omitted from accounting history studies, yet the significance of the port in the 19<sup>th</sup> century was great, coming only second to London in size and being the largest coal exporting port in Britain. From an economic perspective, coal was the biggest driving force in the region. Ship-owners depended heavily upon the coal-trade. The activities of the port exerted a powerful influence on the economic development of the region as the trade heavily depended on this outlet.

By virtue of improvement in steamship design, carriage by sea remained successful despite the development of a rail network. Indeed, this major artery of commerce transporting huge quantities of coal by sea both at home and abroad flourished, with a greater emphasis being placed on the export trade as countries overseas were attracted to the Tyne coal because of its relatively low price and superior quality. There was a growing use of accounting information in assessing the viability of adopting steam in place of sail, a major strategic decision at the time. However, the accuracy of these estimates was questionable as more often than not the steam ships performed better than anticipated. So it can be argued that accounting calculations retarded the progress of the adoption of steam over sail by overestimating the profitability of the latter. Indeed, it is a feature of this study that accounting impinged on the development of the River Tyne in a vital way, sometimes as a retarder of its progress, sometimes as a facilitator. It was through historical



company accounts that entrepreneurs were eventually able to demonstrate the superiority of steam to current and potential investors. The fact that they had committed resources to the new technology in the first place, despite the uncertainties in the accounting data, adds to the debate on the usefulness of accounts to entrepreneurs during the British industrial revolution.

Besides the advancement in steam and ship design, big strides were being made with other technological inventions affecting the coal and shipping trade. Specifically related to the Tyne, coal cutting machinery and development in port and dockside equipment affected the progress of shipping as did dock improvements. Technological development had long-term effects on efficiency and economy, which in turn transformed productivity. The potential for costs savings was even greater as more shipping firms became larger and complex. In revolutionising the shipping industry, new technology created a new range of factors with potential cost accounting implications such as enabling ship-owners to predict voyage times with greater accuracy.

The key question of the role played by accounting in technological innovation has been hotly debated by many authors in relation to the industrial revolution as a whole. For example, Fleischman and Parker [1997] emphasised the effects of technology on management accounting in the Industrial Revolution and cite numerous examples of this in relation to iron, coal and textile companies. The effects on accounting techniques were potentially just as great in respect of shipping, although there is a relative lack of research in this area. The main author in this field is McLean [1995, 1996, 2006a, 2006b], who concluded that the major advances in management accounting practice in the shipping industry occurred relatively late. When looking at the initial adoption of new technology in shipbuilding, accounting



information does not appear to be the root cause in the early to mid 19<sup>th</sup> century. Conversely, accounting information does seem to play a more of a part from the late 19<sup>th</sup> century when the pace of technological progression was at its height. The developing technology also drove improvements in accounting information.

A significant archaic rule affecting the trade on the Tyne was the 'Coal Turn Act' (CTA). The Act was introduced so that preference was not given to any particular vessel. Each ship had to wait its turn, giving merchants more certainty about when their ships would sail. However, with the advancement of steam to power ships and better coal handling equipment and port development, waiting in turn after the much slower sailing ships was not an economic option. The CTA became increasingly contentious as more time in port resulted in money lost. Opponents of the Act turned to accounting information to engineer its repeal. The accounts of the TIC provided a vehicle for demonstrating the detrimental effects of the CTA on the Commission's own financial position, resulting in the Act's repeal soon after.

The shipping industry evolved rapidly in the 19<sup>th</sup> century and was characterised by great diversity of function and complexity of organisation. A vast amount of research on the shipping trade in general has already been undertaken. However, the evidence available in the local archives of the Tyne traders themselves proved limited. In particular, what is lacking is continuous data over extended periods of time. The only exception to this is the Tyne Steam Shipping Company which has to some extent already been reviewed by Northway [1972]. In general, the first point to note about shipping companies is that there was a lack of uniformity in how accounting records were kept. Usually, a type of charge and discharge accounting was used, recording the moneys owing to or by the captain personally on the conclusion of the undertaking. When the ship returned to the home port, a profit or loss could be



determined and divided between the owners in proportion to their ownership of the ship. Journals were not required and were often left out of the accounting process to save time and money.

The differing levels of governmental involvement and reform were major factors in how society in 19<sup>th</sup> century Britain was to develop; and the same was true of the management of the Tyne, which became increasingly the subject of statutory regulation as the century progressed. The major stakeholders in the River Tyne included local and national government, the TIC, the traders and ship-owners, and groups of professionals such as the bookkeepers and engineers who were involved in the accounting process. In many cases the interests of these parties conflicted, and it is a recurrent theme of the thesis how accounting was deployed as a political device ‘at the boundary between co-operation and conflict ... to act as both mediator and contestor’ in resolving disputes [Francis, 1990, p.10].

The level of government intervention had major consequences for the functioning of the Tyne. The 1835 Municipal Reform Act in particular was a watershed in the increase in accountability of the management of the River, which continued throughout the rest of the century. Corporations were made more accountable to the ratepayers of their districts under the Act, which for the first time obliged them to publish accounting data. The extent of the Newcastle Corporation’s neglect of the River was made clearer to the public when a new form of keeping accounts was adopted by the newly reformed Corporation in pursuance of the Act. This data was exploited by opponents, comprising members of the press, Corporation and interested parties from the localities, who did not want to see the River neglected any longer. The River Tyne and its port facilities had been allowed to fall into neglect. Even though the majority of the Corporation’s income came from the River,



only a small amount was expended on its improvement. The opposition fuelled by the increasing availability of accounting data put greater pressure on the Corporation. It did so through the mediums of public meetings, petitioning, and, most importantly, voicing claims through the press. The Newcastle Corporation, for its part, reciprocated by using the accounting data to justify the lack of investment in the Tyne. Therefore, the study supports the hypothesis that published accounts are used to promote the economic interests of interest groups irrespective of the explicit purpose for which that information was originally intended [Watts and Zimmermann, 1979]. The importance of accounting information as a lobbying tool to promote the interests of particular user groups is a recurrent theme of the study, which again supports the view of Watts and Zimmerman [ibid, p.275] that it is 'political action' that 'generates accounting theory, not vice-versa.'

Ultimately, it was the Admiralty Enquiry where accounts were used as a 'mediator and contestor' [Francis, 1990], that resulted in the control of the Tyne being transferred from the Newcastle Corporation to the newly formed TIC in 1850. The TIC represented a much wider grouping of stakeholders. Thus, it can be argued that accounts were used as an 'emancipatory' tool in reducing social exclusivity. Whether the outcome of the battle for control of the Tyne could be regarded as social progress would depend on the perspective of the interests concerned, but it does illustrate accounting being deployed effectively by interest groups to engineer social change. This also raises the question of whether the events described in Chapter 3 are of isolated significance, or whether there are wider inferences that can be drawn. Arguably, the findings in the study add to the growing body of research showing that emancipation through accounts can be successful. This view contrasts with the emphasis in critical accounting research on the repressive nature of accounting in



society. It thus contributes to a growing body of research highlighting accounting's potential as a mechanism for promoting social advancement [G&H, 1996].

The outcome of the battle for control of the Tyne could be regarded as social progress in the sense that it achieved wider representation in the management of the River for the towns, regions and interest groups dependent on it for their prosperity. The newly formed TIC was to be made up of members from all interested regions. Accounts had been used as a communication medium, informing and ultimately aiding radical, democratic forces to challenge and change the existing situation. A similar example in the study relates to the campaign by the Shields ports to gain independence from Newcastle. Again, accounting data was deployed in support of their case, demonstrating its efficacy as a political tool. The Newcastle Corporation, in turn, utilised accounting data in its subsequent campaign for the combined presentation of the Tyne's statistics. This last dispute was mainly about the presentation of information to third parties and their expected reactions; and as such it displays an awareness of the advantages of reporting the desirable position.

Critics of both the Newcastle Corporation and the TIC's management of the Tyne gained valuable ammunition from the increased level of disclosure in the accounts. However, this raises the question of the understandability of accounting information, which becomes more critical as disclosures become more elaborate, requiring accounting competencies to be able to understand them; and indeed accounts can mislead. Making this information understandable was a key concern for contemporaries, including Jeremy Bentham [Gallhofer and Haslam, 2004, p.391]. It is therefore significant that it was the 'educated' 'professional' men on the Tyne such as councillors and journalists, men who were capable of interpreting and manipulating the information reported for their own political ends, who led the challenge on the



establishment.

Raising the necessary funds to pay for the dock and harbour improvements that were needed to enable the Tyne to function was a key area involving accounts, and was the subject of Chapter 4. The TIC started with a huge inherited debt to deal with as well as a pressing need to carry out the vital improvement works. Generating sufficient income to service a large debt and thereby enable the harbour authorities to borrow money to carry out much needed improvements was only part of the problem. Of equal importance was the availability of loanable funds at low enough rates of interest. Duties were increased to help fund improvements, but they were never enough. Funding was sought from private and public sources, always aiming to get the best terms. These loans were publicly advertised for. However, given that the TIC was a new trust with no financial track-record, the rates of interest available were higher than what was currently being offered to other companies. The surviving documentation indicates that TIC was aware of rates beyond the region, and that to borrow locally was generally better.

Accounting data was vital in achieving new loans and better terms, and to attain special privileges offered by the Government and other lending bodies. The key to achieving better terms was for the TIC to be able to demonstrate that it was capable of servicing its debt. Thus, it utilised its published accounts to show its increasing revenue position and growing strength as a means of obtaining reductions in the cost of borrowing. This also shows an awareness of the merits of acquiring a reputation for producing good quality accounts in reducing contracting costs. From the 1880's onwards public loans played an insignificant role in the financing of harbour construction on the Tyne. Despite the initial difficulties, the TIC had little problem in raising capital; and it raised ten times as much capital from private lenders as it did



from Government sources. For example, the total expenditure on works undertaken by the TIC to December 31 1882 amounted to £4.1 million, of which £0.4 million had been expended out of income and £3.7 million raised in loans. Of the borrowings, the Commissioners received £3.3 million from private lenders compared to £350,000 from the PWLC.

The interest of the Government in river affairs was shown with an offer of free loans for any port that could justify a need for a harbour of refuge [HOR]. The TIC put its case forward using accounting data and trade statistics at the forefront of its argument to justify the need for a HOR, and to show that it had the ability to raise the remaining funds needed for the improvement works. The scheme was accepted by the Royal Commissioners on Harbour and Refuge. However, the Government was soon to do a U-turn, and withdrew the offer of free loans. Instead this was replaced with an offer of loans, the value to be re-determined, at a rate of interest lower than the market rate. The circumstances of this offer also changed unfavourably for the Tyne as rates of interest were increased. Appeals by the TIC for reductions in the rates offered and an increase in the amounts loaned were both declined. Here the TIC failed to achieve its objectives by using their accounts to contest the Government, [Francis, 1990]. In essence, one could argue that holding out the 'promise' of funding was a political ploy on the part the Government to encourage the localities to invest in harbour improvements.

One of the most significant issues regarding dues in the 19<sup>th</sup> century on the Tyne was the battle for the ownership of the 5/8ths coal dues held by the Newcastle Corporation from 1850. The fact that most of the coal dues went to the Corporation was the cause of constant discontent and recrimination. It was obvious from the accounts of the TIC that the funds applicable to the river were inadequate for the



execution of any comprehensive scheme of river improvement for which the TIC was responsible. The Corporation, on the other hand, received 5/8ths of the dues which were rising yearly without any river obligations, and spent a large proportion of it on the town. The TIC devised ways using their accounting data to contest the situation, Francis [1990], and gain possession of the 5/8ths.

Ultimately, much of the money expended in port improvement either came directly from the river dues harvested from the ports growing traffic or was borrowed on the strength of the growing revenue. The investment in docks largely came from joint-stock companies, reflecting the increasing depersonalisation of business activities and the growing importance of the railway interest in the general economic life of the community. Here was the greatest example of the truism that the continued growth of coastwise shipping was dependent on massive investment in major harbour improvements on the part of the River Commissions, railway companies, the Government and private investors. In this thesis it is shown that on one occasion the TIC failed to get increased borrowing powers from Parliament and this resulted in an action never to be repeated in the history of the TIC, the suspension all the works on the Tyne. The TIC used the published accounts to justify this course of action on the grounds that it was protecting the public creditor. Whether this was a political ploy to exert pressure on the opposition is open to debate, but accounting was utilised in the dispute to demonstrate the necessity of taking such a step, see work on accounting information used to mediate and contest by Francis, [1990].

River dues were an important source of finance, but the way they were accounted for was very archaic and needed simplification to be able to attract trade. This was achieved by using accounting data first to demonstrate the disorder in the dues system, and secondly to argue that revenues to the port would increase as a



result of an increase in trade if the level of complexity were reduced. These changes were made in part to aid accounting for the dues and also to make it easier for the trader to calculate his costs.

The constitutional arrangements of the TIC created a lot of debate. By the 1875 Tyne Improvement Act, the membership of TIC was changed allowing dues payers on board for the first time, thus reflecting the importance of trade, the growth in industry, and the resulting widening in the accountability of the TIC to other parties. At the same time, and significantly, the dues-payers were empowered to elect an auditor of the TIC's accounts, thereby giving them a degree of control at the heart of the TIC's operations. Although, at this time, the auditors were not qualified people or independent, but were instead members elected by the interests they represented, it was a significant move. For the first time the dues-payers had an elected member to represent their own interests when looking at the function of accounting of the TIC. Perhaps reflecting the growing strength and importance of trade, the membership of the dues-payers at the close of the century was increased to 15 by means of the 1898 Tyne Improvement Act. As a result,, 'representation is now divided equally between the Riparian Municipalities and the Payers of Tyne Dues' [Urwin, 1898, p.5].

When the technique of consolidating the TIC's funds was first proposed by the TIC in the early 1870s, it was a relatively unheard of concept, especially so for public bodies. There were two main factors dominating Guthrie's proposal for consolidation. Firstly, the accounts needed simplifying for lenders to understand as they were complex and increasing in complexity as further borrowing powers were granted. This retarded the process of procuring loans, and thus the development of the Tyne. Secondly, with an increasing reliance on debt, the proposal of consolidation afforded more solid, more substantial and more permanent security to those who lent



money to the TIC. All funds could be used as one as collateral security; and as a larger amount, it was expected that lenders would be more willing to offer their money at lower rates of interest. For the purpose of providing security for monies to be borrowed, the accounts belonging to each fund were to remain separate and distinct. However, the layout of the published accounts could now be rationalised. The 1872 Act required the TIC to keep a separate account of the money borrowed on the security of the Tyne Consolidated Fund, and also a separate account of the interest paid thereon. Looking at the published accounts of the TIC, the most obvious change was that the revenue and capital accounts became consolidated.

It was obvious from the accounts that some funds were in surplus and others in debt, and those in debt were paying interest on the amounts that had been borrowed to fund the improvement works. Proposals for consolidating all funds for borrowing and expenditure purposes were made and were rejected as it was argued that river funds would be used for dock works, a concept that could not be accepted while dock works continued to demand such a large expenditure. However, with the passage of time as the improvement works began to be completed, plans to consolidate the funds were revisited by the new TIC Secretary, Urwin. He was conscious that in the past opposition to consolidation plans had been spurred by a fear that funds would be misapplied and used for purposes that they were not created for. Now, with the works drawing to a close, this was no longer a burning issue. In 1885 the complete fusion of the river funds and the dock fund resulted, but with the capital and revenue accounts of each fund to be kept distinct for statistical and other purposes. Five years later, 'maximised consolidation' was realised. However, the TIC continued to show all receipts and expenditure in respect of each fund separately in its books and accounts in order to enhance transparency, and to perhaps forestall any unwelcome



investigations into how the TIC managed its funds.

Perhaps the biggest internal inquiry of the TIC occurred in 1880 after the death of the TIC secretary, James Guthrie. Clearly, the catalyst for this inquiry was Guthrie's death as it was not pending beforehand. This practice was not new as the death of a senior officer, the bookkeeper, within the Corporation of Newcastle stimulated an in depth investigation into the accounting practices in 1859 [Brackenborough, 2008]. What can be seen from this and other inquiries is that the need for the TIC to be accountable to a wide range of stakeholders in the River Tyne resulted in significant changes in the way it operated. Significant ramifications include the restructuring of accounts and organisation, the revision of accounting techniques and methods, and improving the system of internal control.

The TIC was also accountable to a whole host of external bodies. As the TIC was a trust, it was accountable to the many different users of the Tyne – traders, ship-owners, local industries, and the local areas represented by their respective Councils. Because of this, almost anyone could spark an inquiry into the TIC's management of the Tyne. The Government, Admiralty, Royal Commissions, or even the Newcastle Corporation could get involved in carrying out investigations into the affairs and regulation of the TIC. In many cases these external inquiries were not welcomed by the TIC, who saw them as too frequent and excessive. Accounting data provided the TIC with a means of countering the allegations made against them.

In the early days of the TIC, the accounting arrangements were inherited from the Newcastle Corporation, including the treasurer. Unfortunately, the inherited Treasurer was not able to do double-entry and presented accounts in a format unsuitable for a Trust. This resulted in, two years later, an accountant [Guthrie] being appointed to restructure the presentation of the accounts appropriately. I have studied



all the available accounts relating to the River Tyne in the 19<sup>th</sup> century, for Newcastle Corporation up to 1849 and the TIC from 1850 to 1900. As anticipated, it was found that the accounts showed more detail as the century progressed, reflecting the increase in accountability of these public bodies. The most significant ramifications of the change in control of the River were presentational changes, development in accounting information, and in the role of the auditor, all of which increased the pressure for the appointment of qualified auditors and accountant in the latter years of the 19<sup>th</sup> century.

The TIC was obliged from the outset to publish accounts and appoint four auditors, one from each of the respective boroughs represented on the TIC (Newcastle, Gateshead, North and South Shields). This was set by the Tyne Improvement Act, 1850. The TIC used a bilateral account format, with an account for capital and an account for revenue. The accounts were printed and circulated amongst the members of the corporations of the different boroughs represented on the TIC, as required by the Act.

It is obvious from looking at the accounts themselves that the volume of detail grew rapidly as the century progressed. New accounts were created, the accounts showed more detail, and explanatory notes were added. Some additional accounts were created by statutory requirement. However, this was not the case for all the accounts, which are likely to have been innovations by Guthrie and his successors, further improvements to the accounts continuing after his death. Given that no explanations could be found in the minutes as to why these accounts were created, it seems reasonable to assume that the TIC felt it beneficial to disclose further information to satisfy the various parties to which it was accountable, reducing the likelihood of costly inquiries.



Significantly, when examining the available accounts it was apparent that there was a greater increase in detail, disclosure and volume of statements presented from 1882 onwards. The 1882 Local Authorities Act may have prompted this as the auditing and accounting provisions of the Act promoted increased disclosure by public bodies. Thus, the Act ‘strengthened and modernised the audit and account provisions of the earlier Municipal Corporations Act 1833’ [Coombs and Edwards, 1993, p.65].

The auditors were ordinary council members and not qualified professionals. Moreover, there was no requirement that they should be. The fact that the first accounts of the TIC were declined in their present state and deemed inappropriate for a trust suggests that at least one of the auditors had some accounting knowledge, or that some form of guidance was available at the time relating to trust accounting. An attempt to retrieve background information on the elected auditors proved unsuccessful, leaving their accounting expertise open to conjecture. The requirements imposed on the auditors were minimal in comparison to the audits of today; and the scope of the audit was limited to comparing receipts and payment vouchers with the accounts, and checking that the balance of cash agreed to the bank statements for the first 25 years of the TIC’s existence. After this there was a marked improvement in information given, yet clearly the audit was still limited in scope.

The last quarter of the 19<sup>th</sup> century marked the advent of an accountancy profession that aimed to uphold professional standards of conduct. The increase in the scope of the TIC’s audit might therefore have been a response to criticism that it should have been appointing independent professional auditors, as there were no statutory requirements at the time that would have increased the level of audit work. One of the factors in the delay in the appointment of a professional might have been



cost, as the present auditors did their work gratuitously. It was not until 1899 that a 'Chartered Accountant's Certificate' was first produced in addition to the 'Statutory Auditors' Certificate' to signify the appointment of a professional. Why this occurred then is unclear, but it was in this year that a chartered accountant was first employed to examine and check the books and accounts of the TIC and to report on the annual accounts alongside the existing auditors. He carried out much of the same work as the auditors, as the auditors' and accountant's statements read very much the same with regard to the scope of their work. The auditors were still elected members from the various councils and dues-payers. However, now two of the five individuals did have professional accounting qualifications. One can only assume that the independent accountant was necessary to enhance the accountability of the Commission. Thus we see an overlap in the work completed by both parties.

Finally in this thesis, accounting for the capital projects on the River Tyne was examined. It was found that, generally speaking, costs were calculated using projections and were defrayed either by loan or out of income. The cost of structural works was covered by loans, and works of maintenance paid for out of income. Therefore, the manner in which projects were costed, and income was separated from capital, had a major bearing on investment/funding decisions. Again it was shown that accounting information retarded the progress of many constructional works as either the TIC argued that they could not do the works owing to a lack of finance; or the opposition accused the TIC of mismanaging funds, and tried to halt it from receiving the increased borrowing powers that it needed in order to carry out the further works, again adding to the theory of the role of accounting as a contestator and mediator, Francis, [1990]. Consequently, there was a rather haphazard approach taken to many construction works, some only having their foundation stone laid before they



were later abandoned, usually due to lack of funds whilst others suspended and delayed until funds became available.

When looking at the Coble Dene project, it was seen that various parties manipulated accounting data to their advantage, either to promote or to try to put a stop to the project with repercussions for its progress. The many delays that resulted meant that the CDD was not as useful upon its completion as had been anticipated when it was first proposed.

Notwithstanding the importance of calculating income to the TIC's funding/investment decisions, the study found that depreciation was not provided throughout the 19<sup>th</sup> century, even though a depreciation deduction was allowed on plant and craft by the Income Tax Authorities from the 1880's. Categorising depreciation appeared problematic and subjective. It was the same for traders as there was no real guidance on the issue. However, by the end of the century, there is evidence of a move towards greater uniformity in the way depreciation was accounted for. Evidence shows that the TIC were aware of the alternative of writing off capital expenditure to revenue as it was incurred as a means of reducing taxable profits, which unsurprisingly, the Income Tax Authorities were not in favour of. Ultimately, given the awareness of the TIC of the relative benefits that could be derived from accounting for capital expenditure in different ways, one can only conclude that the TIC did not want to charge depreciation perhaps because they needed to attract loans, and the balance sheet would look better without it. The findings relating to the River Tyne therefore provide a useful supplement to previous studies in helping to build up an overall picture of the spread of the concept of depreciation. The lack of uniformity in practice was the same for shipping companies.

As far as capital investment decisions were concerned, for the large part of the



19<sup>th</sup> century, without the influence of an accounting profession, it was found that it was the responsibility of the engineer to manage these works and to provide the initial accounting data such as estimations and costing data. For the larger rivers in the 19<sup>th</sup> century, undertaking important projects often meant that a consultant engineer was involved. In some cases, the river-authorities – generally town corporations at the start of the 19<sup>th</sup> century and harbour authorities towards the end – employed their own full-time resident engineers as was seen on the Tyne.

It was often the case that the engineer was the originator of many accounting reports, producing costing data that was then used by the TIC's accountant in his reports. Original estimates by the engineers were often significantly less the actual cost resulting, and so were heavily criticised. The engineers, in response, justified the differences through ex post analysis of the accounting data, showing how the works had been extended beyond the original plan. It also seems to have been the case that the works executed under the immediate direction of the TIC's own engineers were 'better, cheaper, and more expeditiously done than when let to contractors' [NTCP, 1875, p.349], enabling the authority to secure the greatest efficiency at the least expenditure of public money. These findings add to the debate in the current literature regarding the financial role the engineer within organisations prior to the 20<sup>th</sup> century.

### **Points for future research**

First and foremost, the thesis has concentrated on the River Tyne and it would be interesting to see if there were similarities with other ports in Britain. This leaves a large area of research open for future work. For example, did other local authorities or trusts encounter the same intensity of opposition as the TIC, and what were the accounting implications? If consolidation was adopted by other river authorities, what



did it comprise, when did it occur, and what was the reasoning behind it? It would be interesting to see how other river authorities dealt with depreciation. What was the financial role of the engineer on other rivers during the 19<sup>th</sup> century? What was their education and background? What actions were taken elsewhere to deal with issues arising at ports as the result of economic, social and technological developments in the 19<sup>th</sup> century?

On several occasions the thesis has referred to the influence of the North Eastern Railway Company over the TIC's accounting. One would have expected that comparisons, more often than not, would have been with other local authorities. However, when discussions were entered into relating to important accounting issues – for example, consolidation, repayment of capital and depreciation – there was no sign of linking these ideas with other authorities. This raises many questions and leaves an interesting area for future research. Why was the NERC used as a comparative so much? Was it because their focus on the distinction between capital and revenue and their use of the double account system that was similar to that employed by the TIC? How was so much known about the accounting practices of the NERC by Newcastle Corporation and the TIC? Were the accounts of the NERC similar to those of the TIC? Did the NERC have any influence over the TIC? Were there any people connections? Edwards [1986, p.252] notes that 'the railways were the first business investment financed by the general public on a large scale'. So this may be a reason why the railways had such a pioneering role in the development of the TIC's accounting practice.

It would be interesting to see if other Harbour Commissions that were chosen to construct a harbour of refuge were dealt the same hand by the Government as the TIC. The withdrawal of the free grant applied to all, but there is still the question of



how the Government used its discretion when determining the levels of loans granted and interest charged to other Harbour Commissions. The thesis has touched on this in relation to Hartlepool, Filey and Dover, but more work is required in this respect.

Without the contribution of accounting, the River Tyne would not have been the success it was in the 19<sup>th</sup> century. With the control of the River being given to the TIC in 1850, effectively ending the ancient monopoly held by the Newcastle Corporation, significant improvements resulted. There was a rapid increase in ships using the River, particularly related to the coal-trade. The River was improved and new docks constructed, providing better facilities and space for the increasing traffic. The River Tyne will always be remembered especially for its importance in the coal-trade, but its improvement was a tortuous process involving many political battles. And it is here perhaps that the role of accounting was most significant. It was accounting that enabled the political battles to be fought that in turn enabled the development of the River on which the economic development of the region in the 19<sup>th</sup> century hinged.



FIGURES 6-12: 1853 TIC Accounts, [Newcastle Central Library, L627.22, CRD2141-5]

[illegible]



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[illegible][illegible]

CR,

By	Amount	Dr	Cr	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000
By	Amount	Dr	Cr	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								



FIGURE 8

Fund, for the Year ending 31st November, 1858.

		Dr.		Cr.	
		£	s.	£	s.
By Yearly Subscriptions	for Edinburgh	725	43		
By House Property, for Purchase Account		12000			
By Stock and House Charge		2121			
By Northumberland and Durham District Baking Company, for Balances in their		2807			
By River Improvement Fund		872	12		
		£ 887 01		3 3	

JAMES DUFFIE,  
Treasurer.

Dr. Balance Sheet of the River Tyne Improvement

		Dr.		Cr.	
		£	s.	£	s.
To Balance for Previous Years					
Contribution to the Tyne		20000	0		
Various other Contributions		1800	0		
To Sir W. A. Mackenzie, Bart., for House Property				12000	0
To General Telford's Account for the Tyne				1800	0
To Tyne Improvement Fund, for Balance of Revenue, on 31st November, 1858				20000	0
Balance for Year ending 31st November, 1858				2340	13
To Cash owing to Tyne Improvement				12	13
		£ 45794		13 13	

JAMES DUFFIE,  
Treasurer.

Witnessed at Newcastle-upon-Tyne, 10th January, 1859. Examined and found correct.  
THOMAS HEDDERLEY,  
GEOFFREY DAVISON,  
JOHN ERLISS,  
JAMES SMITH,  
Deputies.



Dr.

An Abstract of the River Tyne Moorings

RIVER POLICE

	£	s.	d.
To TONNAGE DUTY of One Tonnage upon Shipping	227	12	4
At Customs House, Newcastle, on	191	0	0
At Customs House, North Shields, on	115	18	1
At Customs House, South Shields, on	27	11	1
Deduct Two-thirds carried to Minorities Account	183	11	1
To TYNE IMPROVEMENT FUND, for Expenses of Police in excess of Tonnage Duty	43	15	8
applicable to Police purposes	185	10	6
To Balance against Tyne Forward	22	11	0

MOORINGS

	£	s.	d.
To Two-Thirds of Tonnage Dues as above	191	0	0
To MORTGAGES (CONTRACTED) bearing interest at 4 per cent. viz.	400	0	0
One for	100	0	0
Another for	300	0	0
Forward	111	11	0

Fund, for the Year ending 9th November, 1853.

Cr.

ACCOUNT

	£	s.	d.
By balance brought from last year	185	10	4
By Judgement's Wages	187	10	10
By Firing of 1st and 2nd Bunkers for Engines	41	9	2
By Bunkers, &c.	83	0	1
By Clothing and Appointments	21	11	8
By Painting, Alterations, and Repairs	11	2	10
By Bunkers, Tallow, and Fuel	104	8	4
By Cords for Shipping	31	8	0
By Moulds and Alterations	0	8	4
By Miscellaneous Disbursements	29	10	4
	2	23	11

ACCOUNT

	£	s.	d.
By Balance from last Year	183	17	5
By Sides for Altering Vessels	97	13	5
By Repairs to Mooring Vessels	31	10	0
By OLD MOORINGS ACCOUNT—			
Labourage and Expenses in Overhauling, Repairing, and Maintaining Old Moorings at North Shields, as per Engineer's Pay Bills, &c.	601	9	8
By NEW MOORINGS ACCOUNT—			
Labourage in laying down New Moorings at South Shields			
Maintenance for Days	522	1	0
Town & Quay, for Days	208	18	0
Rayne & Horn, for ditto	849	3	1
Tyack & Co., for Sundry	510	7	0
Wm. Abbott & Co., for Buys and Ground Chains	267	1	0
Wm. & Partners, for Ground Chains, &c.	1861	13	4
Krant & Sons, for Ropes	77	0	1
Miscellaneous	4	7	7
	2707	8	8
Outgo, for Accounts 8th November, 1853	1023	8	10
	1716	17	0
Labourage at New Moorings	231	0	0
Labour and Sundry Work for Days	181	18	11
Miscellaneous	216	4	11
	876	4	11
Forward	2593	21	11







Dr.

Statement of Accounts of Tyne Piers

		£	s	d.
To TIDE DUES on FOREIGN VESSELS:—				
Newcastle	20,115 Tons	5007	10	8
North Shields	12,911 Tons	197	12	2
South Shields	1087 Tons	7	7	10
To FUEL DUES on COASTING VESSELS:—				
Newcastle	2,000,702 Tons	8197	18	6
North Shields	12,911 Tons	726	2	3
South Shields	102,532 Tons	426	12	8
To Interest on Banking Account with Northumberland and Durham District Banking Company, 10th November, 1863		1020	13	11
		10423	10	5
To Tyne Piers Fund Account for January, 1864.—Examined and found correct.		928	10	2
		£ 11050	0	7

BALANCE SHEET OF TYNE PIERS

	£	s	d.
To Tyne Piers Fund Account for January, 1864.—Examined and found correct.	10746	11	6
	£ 10746	14	0

JAMES GUTHRIE,

ACCOUNTANT.

Examined and found correct.

THOMAS HILLMAN,  
GEORGE DAVISON,  
ROBERT EATON,  
JAMES SMITH,

Fund, for the year ending 9th November, 1863.

	£	s	d.
By W. H. Smith for Collecting Dues at South Shields, to December, 1862	...	...	...
By Messrs. Lambart, Printing Receipts Forms	...	...	...
By Messrs. Lambart, Printing Receipts Forms, on Survey	...	...	...
By C. H. Brooke, for Assistance to the Engineer	...	...	...
By J. & M. Clayton, Law Bill	...	...	...
By Tyne Improvement Fund, for 2-8ths of expenses connected with obtaining Tyne Improvement Act, 1862, and for Pier estimates	1770	4	8
By Balance	1831	17	3
	£ 10050	0	7

FUND, 9th November, 1863.

	£	s	d.
By Northumberland and Durham District Banking Company	10746	11	6
By Cash in Treasurer's hands	10746	14	0

JOSEPH COWEN,  
Clerk.



FIGURE 12

Dr. Statement of Northumberland Dock

To principal sums advanced on the following mortgages of the Dock Dues, bearing interest as follows:		£	s	d
for Cash, per annum:—				
Security for .. .. .	425000 0 0			
Security for .. .. .	4000 0 0			
Security for .. .. .	3000 0 0			
To Interest Account, for Interest on Banking Account to date .. .. .	1000 0 0			
		£432000	0	0

JAMES GUTHRIE,  
Accountant.

Newcastle-upon-Tyne, 10th January, 1853.—Examined and found correct.

THOMAS LINDLEY,  
GEOFFREY LAYTON,  
ROBERT FRIZZES,  
JAMES SMITH,  
Attorneys.

Account, to 9th November, 1853.

By PAUL LAMBERT and J. A. W. CHARGES ACCOUNT:—		£	s	d
Solicitor's Charges and Stamp Duty on Mortgage Securities .. .. .	1000 0 0			
Typo Impression, Bond, for 2-3ths of Expenses of soliciting Tyne Improvement Act, 1852, and for Dock Expenses .. .. .	1000 0 0			
By EXHIBITION EXPENSES:—				
John Pines for preparing Working Drawings, &c. .. .. .	1000 0 0			
By David Thompson, Post bill on Account of his Contract .. .. .	4000 0 0			
By Balance in Northumberland and District District Bank .. .. .	6700 0 0			
		£10000	0	0

OSWELL TOWN,  
Chairman.



REPORT OF THE FINANCE COMMITTEE.

NEWCASTLE-ON-TYNE.

1st Year, 1877

We beg to submit a Statement shewing the Income and Expenditure of the Commissioners, on the various Funds, during the year 1876.

The gross Income amounted to £186,815 1s. 5d., being an increase over that of the preceding year of £5,455 12s. 2d. In this is included some sums for Treasury Bonds—£1,526 10s. 9d.—received for the first time.

The Expenditure on Revenue Account, including interest, upkeep of works, and dredging for navigation, was £179,180 12s. 4d., leaving a surplus of £7,637 9s. 5d., made up as follows, viz. :—

Extra Fund, say, for reserve .. .. .	£1,222 1 10
Docks Fund .. .. .	6,881 9 11
Moorings Fund .. .. .	608 10 1
.....	.....
.....	8,722 7 10
Less Tyne Improvement Fund .. .. .	1,084 14 3
.....	.....
.....	£7,637 9 5

But for the restricted Expenditure since June last, even on works of maintenance, the deficiency on the Tyne Improvement Fund would have been larger.

The outlay on New Works and Improvements, as shown in Consolidated Capital Account, has been as follows :—

Tyne Improvement Fund .. .. .	£80,567 17 -
Tyne River Fund .. .. .	31,000 0 7
New-embellished Dock Fund, —	.....
At the Dock Back Construction and Interest on Capital .. .. .	£48,877 13 2
Interest on the Dock .. .. .	167 7 6
.....	60,000 0 0
.....	£169,822 7 5

Subducting from this the before-named surplus of £7,637 9s. 5d., leaves a balance of Capital Expenditure over Income of £162,184 18s. 0d.



The balance sheet shows the Mortgage Debt of the Commissioners, on all the Funds, to be as at 31st December, 1876, £3,017,195 2s. 7d., which amount is appropriated or charged direct on the different Funds, as under. Paralleled figures are given showing the sums yet unappropriated of the total borrowing powers of £3,700,000 :-

	Charged on, or Appropriated to.	Unappropriated	Total Power.
Trust Improvement Fund .....	£2,813,944 5 10	£201,055 13 2	£3,015,000
Moorings Fund .....	55,000 0 0	.....	55,000
Piers Fund .....	504,441 10 11	57,558 9 1	562,000
Northampton Dock Fund.....	603,800 5 10	446,190 13 2	1,050,000
	£3,017,195 2 7	£284,804 77 5	£3,302,000

The quantity of Coal taken from the Port in 1876 was :-

Coal-twine.....	2,765,791
Overstn .....	4,452,815
Total.....	7,218,606 tons.

being an increase of 220,320 tons over the shipment of 1875.

The Registered Tonnage of Vessels clearing from the Port shows an increase of 91,889 tons, and the average size of Vessels, using the Port has increased from 305 tons in 1875 to 319-400 tons in 1876.

The quantity of Material raised by the Dredgers was 1,572,098 tons, at an average cost of 11d. per ton.

We submit the Statement with a recommendation that the same be adopted by the Commissioners, they be signed by the Chairman, and that the Accounts be then laid before the Auditors for examination.

THOMAS RIDLEY.

CHARTERMAN















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